APPENDIX R
BIOLOGICAL OPINION FROM USDI-FWS

BIOLOGICAL OPINION

on the

Effects of the

Bureau of Land Management Resource Management Plan for the Dillon Field Office

on

Grizzly bears

Agency:	U.S. Department of the Interior Bureau of Land Management
Consultation Conducted by:	U.S. Fish and Wildlife Service Billings Sub-office Montana Field Office Helena, Montana
Date Issued:	October 29, 2004

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I. INTRODUCTION AND CONSULTATION HISTORY

This biological opinion is based on the Fish and Wildlife Service's (Service) review of the Dillon Bureau of Land Management Field Office (BLM) proposed Resource Management Plan (plan) located in Beaverhead and Madison Counties, Montana, and its effects on the threatened Canada lynx (*Lynx canadensis*), threatened grizzly bear (*Ursus arctos horribillis*), threatened gray wolf (*Canis lupus*), threatened Ute ladies'-tresses (Spiranthes diluvialis), and threatened bald eagle (*Haliaeetus leucocephalus*). The Service received your request for formal consultation on March 23, 2004.

The following chronology documents the consultation process which culminated in a decision to initiate formal consultation on grizzly bears:

October 8, 2003: An informational meeting attended by the Dillon BLM field office supervisor, terrestrial biologist, planning specialist, a BLM state office planning specialist, and a Service biologist was held at the Dillon Field Office. The plan development was discussed along with the needs of listed species.

December 16, 2003: Dillon BLM sent a letter to the Service requesting a list of threatened and endangered species occurring in the planning area.

January 23, 2004: The Service sent a species list letter to the BLM.

March 22, 2004: The BLM sent a letter to the Service requesting formal consultation on grizzly bears, along with a biological assessment addressing impacts of the plan to grizzly bear, lynx, bald eagle, gray wolf, Ute ladies' tresses, Montana arctic grayling, as well as other sensitive species. BLM determined that their plan was likely to adversely affect grizzly bears based on high road densities, lack of a comprehensive food storage order, and grazing practices.

This biological opinion is based primarily on our review of your March 22, 2004 biological assessment received on March 23, 2004 regarding the effects of the proposed action on threatened and endangered species, and on your March, 2004 *Draft Dillon Resource Management Plan and Environmental Impact Statement*, and was prepared in accordance with section 7 of the Endangered Species Act (Act) (16 U.S.C. 1531 *et seq.*). A complete administrative record of this consultation is on file at the Billings Ecological Services Sub-office.

Streamlining

This resource management plan authorizes a wide variety of land use allocations and project types. Many of the site-specific projects that will result from the plan will require interdisciplinary team development, watershed analysis, compliance with the Federal Lands Policy and Management Act and National Environmental Policy Act and other analyses and documentation before they can proceed. It was not the Service's intent to fully evaluate effects of individual projects in this

opinion. Rather we analyzed the likely effects on listed species of implementing plan direction, as proposed. Individual site-specific projects that may affect listed species are subject to Act requirements, including additional formal or informal consultation with the Service.

Site-specific project level consultations under the plan may be streamlined by tiering them to this programmatic biological opinion. Time savings associated with using a tiered consultation process can be substantial, especially where a large number of similar projects are anticipated. The efficiency of the tiered process is dependent upon early coordination with the Service and the level of detail analyzed in the programmatic biological assessment and opinion.

II. DESCRIPTION OF PROPOSED ACTION

The following description of the proposed action is largely excerpted from the *Draft Dillon Resource Management Plan and Environmental Impact Statement*, March, 2004. The Dillon field office is responsible for managing all BLM lands in Beaverhead and Madison Counties, with the exception of approximately 12,380 acres of BLM land in Beaverhead County along the Big Hole River managed by the Butte field office. The Dillon planning area includes varied and intermingled land surface ownerships and mineral ownerships.

Decisions in the resource management plan will apply to just over 900,000 acres of BLM land surface estate and 1.3 million acres of federal subsurface mineral estate. This includes:

- All surface estate administered by the BLM's Dillon field office
- Federal mineral resources managed by the BLM beneath private or state surface estate
- Federal mineral estate lying beneath lands administered by the Bureau of Reclamation
- Federal mineral estate lying beneath lands administered by the Agricultural Research Service

The plan will not make decisions for the surface or mineral estates of land administered by the BLM Butte field office or the USDA Forest Service, or for private or state-owned lands and minerals.

The planning area lies in the extreme southwest corner of Montana, bounded on the south and west by the State of Idaho and the Continental Divide. The area is rural in nature, with small communities scattered throughout Beaverhead and Madison counties. Census data from 2000 shows Beaverhead County with a total population of 9,202 and Madison County with a total population of 6,851. The larger communities of Butte (population 33,892) and Bozeman (population 27,509) are located to the north and east of the planning area. Interstate 15 provides a major north-south travel route through the planning area, while Interstate 90 lies just north of the planning area, providing an east-west travel route.

The majority of the planning area lies within the Beaverhead Mountains section of the Middle Rocky Mountains province as described by Bailey (Nesser et al. 1997). Elevations range from 4,500 feet to 11,154 feet, with several distinct mountain ranges spanning the planning area. These include the Beaverhead Mountains, the Blacktails, the Centennials, the Tendoys, the Gravellys, the Pioneers, the Rubys, the Madison, the Tobacco Roots, and the Highlands.

The area experiences a continental climate of cold, relatively dry winters and warm dry summers. This type of cool dry climate gives rise to sagebrush-grassland communities in the valleys and forests at higher elevations. The average annual precipitation varies from 50 inches in the Pioneer Mountains to 8 inches in some of the drier valley areas. Most of the planning area receives 8 to 16 inches, with most precipitation coming in May and June. Springs that are considered the uppermost headwaters of the entire Missouri River drainage are located on BLM lands administered by the Dillon field office. The Beaverhead, Big Hole, and Madison Rivers drain the planning area.

Resource management plans provide direction and standards for a large variety of projects and types of activities, including timber management, recreation, range management, mining, watershed restoration, fish and wildlife habitat management, fire and fuels management, land exchanges and acquisitions, and a variety of special uses. The following description of authorized activities highlights those actions that affect habitat management and thus are have the potential to affect listed species. For a full account of the contents of the plan used for this consultation, see the *Draft Dillon Resource Management Plan and Environmental Impact Statement*, March 2004.

Forest management generally consists of two categories of activities: timber harvest and associated actions, and silvicultural treatments used to develop desirable stand characteristics. Timber harvest and associated actions can include: road construction, landing construction, renovation and use, including quarry operation; yarding and skidding logs; clear-cutting or thinning treatments; salvage of dead or dying trees, and maintenance of existing roads. Road maintenance includes surface maintenance (blading), surface replacement, drainage maintenance and repair, vegetation management (brushing, limbing, seeding and mulching along roadways), slide repair, sign maintenance and repair, and maintenance, replacement and repair of major structures (bridges and major culverts). Silvicultural treatments include planting, prescribed burning, plantation maintenance and release (density management, pre-commercial thinning and control of competing vegetation), animal damage control, and fertilization.

Forest vegetation management actions authorized under the plan include:

- Continue collaborative vegetation planning on a multi-agency ownership basis.
- Coordinate all proposed vegetation treatment projects with Montana Fish Wildlife and Parks.
- Conduct no mechanical treatment on slopes of 70 percent or greater.

- Aspen restoration treatments of 100 acres or less will be excluded from livestock grazing until aspen restoration is a minimum of 5 feet tall on average.
- Consider treatment of insect infestations with sanitation cutting or other methods on a case-by-case basis.
- Provide wood products as a result of vegetation treatments on a case-by-case basis where appropriate.
- Consider salvage harvest on a case-by-case basis.
- Conduct forest vegetation inventory utilizing the Forest Vegetation Information System with a target completion date of 2020.
- Focus on the following geographic areas for treatment of forest and woodlands first:
    - Southern Rubys
    - South Tobacco Roots
    - Barton/Idaho Gulch

  Treat up to 4,000 acres in Cool/Moist habitat type groups with commercial thinning, group/individual tree selection, or clearcut with reserve treatments within these geographic areas.

  Treat up to 10,000 acres in Warm and Very Dry and/or Warm and Dry habitat types using commercial thinning or group/ individual tree selection treatments.

  Once treatments in focus areas are implemented, continue treatment in the Warm and Very Dry and/or Warm and Dry habitat types up to an additional 9,000 acres using commercial thinning, group or individual tree selection treatments, with priority in urban interface areas.

- Implement up to 12,000 acres of aspen restoration treatments in priority areas primarily located in southern portions of the Dillon planning area.
- Allow mechanical treatments in conjunction with prescribed fire in wilderness study areas where wilderness values will be enhanced.

Forest products actions and allocations made by the plan include:

- Coordinate with appropriate entities pertaining to forest vitality and diversity, and/or other administrative concerns.
- Conduct inventory of remaining forest lands that have not been inventoried.
- Analyze the salvage of forest products resulting from wildfire, prescribed fire, forest insect/disease, or weather induced events.
- Conduct salvage in a manner commensurate with forest health guidance and in consideration of other resource values. Consider removal of suitable biomass (non-commercial size products) on a case-by-case basis.
- Provide the opportunity for both traditional and non-traditional use of forests and woodlands.
- Stewardship opportunities would be considered on a case-by-case basis.

- Management actions would not change more than 15 percent of lynx habitat within a Lynx Analysis Unit to an unsuitable condition within a 10 year period. Additional programmatic-specific conservation measures are found in the *Lynx Conservation Assessment and Strategy*.
- Manage 35,000 acres (23,000 acres without aspen) as available for harvest, with an associated annual Probable Sale Quantity of 6.6 MMBF (3.6 MMBF without aspen), allowing harvest in all habitat types in the following areas:
    - Southern Ruby Mountains
    - South Tobacco Root Mountains
    - Barton/Alder Gulch

  Allow additional harvest across the planning area in Warm and Dry, Warm and Very Dry, and Cool and Moist habitat type groups.
- Conduct commercial thinning in up to 14 percent of moist forest habitat types.
- Replant all disturbed sites after disturbance to reflect historic stocking rates. Monitor/resolve effects of grazing pressure on regeneration sites.
- Consider salvage harvest in insect ridden, diseased, and burned stands, with an emphasis on spruce budworm infestations.
- Provide for opportunities for small sale of forest products within same areas available for commercial harvest.

Recreation consists of activities that provide for a wide range of developed and dispersed recreational opportunities. Developed recreation actions include campground maintenance and recreation site and trail construction/maintenance. Dispersed activities include general public use of Federal lands (hunting, fishing, camping, hiking, etc), environmental education, and management of off-highway vehicles.

The following provisions for recreation are provided in the plan:

General recreation

- BLM administered land in the planning area would be managed for a variety of recreation opportunities (i.e., hunting, fishing, sightseeing, off-highway vehicle use, horseback riding, mountain biking, hiking, rafting, rockhounding, etc.) consistent with other resource management objectives.
- Implement the Lower Madison River Recreation Area Management Plan (USDI-BLM 2003) and the Missouri-Madison Comprehensive Recreation Plan (Dames & Moore 1996, revised PPL Montana, LLC 2001) to manage lands in the lower Madison River corridor.
- Complete the evaluation and update of the Bear Trap Canyon Wilderness Management Plan (USDI-BLM 1984) and begin implementation.
- Provide appropriate protection of significant cave resources identified in the planning area in accordance with the Federal Cave Resource Protection Act of 1988.

- Develop additional recreational support facilities at Maiden Rock Boat Launch site in addition to implementing the Lower Big Hole River Recreation Area Management Plan (USDI-BLM 1987).
- Prepare and implement a management plan in cooperation with Montana Fish Wildlife and Parks for Axolotl Lakes acquisition lands consistent with other provisions in this respective alternative.
- Establish use levels for BLM launch sites in coordination with Montana Fish Wildlife and Parks to manage for quality opportunities.
- Maintain six special recreation management areas:
    - Axolotl Lakes
    - Bear Trap/Ennis Lake/Lower Madison
    - Big Sheep Creek
    - Centennial Mountains
    - East Fork Blacktail
    - Upper Madison River

  Drop two special recreation management areas:
    - Lower Big Hole River
    - Ruby Reservoir

  Designate three new special recreation management areas:
    - South Pioneers
    - Rocky Hills (if released)
    - Ruby Mountains

  A total of 123,540 acres.

Recreational facility development:

- All existing recreation facilities would be maintained and managed, some in partnership with other agencies or groups.
- Emphasis would be placed on providing interpretive and informational signs and materials for BLM lands visitors, and maintaining existing facilities to a high standard consistent with the recreational setting.
- Consider rental of existing cabins/facilities on BLM land for public recreational use on a case-by-case basis.
- Non-motorized recreational trails would be constructed and/or maintained as funding and staffing allow. Priority for this work would include the East Fork Blacktail Deer Creek area and the Ruby Mountains.

Special recreation permits:

- Manage special recreation permits in accordance with established terms and conditions.
- Evaluate applications for recreational related activities other than outfitted big game hunting on a case-by-case basis.
- Manage outfitted big game hunting permits based on Outfitter Permit Areas and maintain current levels of permitted outfitter use (visitor use days):

- Blacktail Mountains/Sage Creek – 150
- Centennial Mountains and Valley – 490
- E. Pioneers/ Highland Mountains – 90
- Horse Prairie/Tendoys/Big Sheep Creek – 550
- Madison River – 140
- Ruby Mountains/Sweetwater – 60
- Tobacco Root Mountains – 20

Range management activities on Federal lands include livestock grazing, and rangeland improvements (fencing, water development, livestock handling facilities, and vegetation management). Noxious weed control programs may be implemented in association with range management or other actions, such as silvicultural treatments.

Range management activities authorized under the plan include:

- Actions on BLM lands will be consistent with achieving the Western Montana Standards for Rangeland Health.
- Complete assessments for rangeland health on a priority watershed basis.
- Strategies that best protect rangeland resources during periods of drought would be implemented with an emphasis on voluntary adjustments in livestock use to achieve long-term resource productivity.
- Treat or harvest conifer encroachment in all non-forested habitat types on a case-by-case basis using prescribed and natural fire, mechanical treatment, or other tools as appropriate.
  - Focus treatments in areas of urban interface and in the following geographic areas:
    - Southern Rubys
    - South Tobacco Roots
    - Barton/Idaho Gulch
- Treat xeric shrubs on a case-by-case basis using all available tools for a fire return interval of approximately 50 years.
- Treat mountain shrub on a case-by-case basis using all available tools for a fire return interval of approximately 20 to 40 years.
- Treat fire-sprouted mountain shrub on a case-by-case basis using all available tools for a fire return interval of approximately 20 years.
- Consider treatment of mesic shrub types (which occur in limited amounts within the planning area) on a case-by-case basis.
- Seedings will meet site-specific objectives. Focus restoration on areas containing high resource values using all tools available.

Livestock grazing actions and allocations include:

- Actions consistent with achieving the Western Montana Standards for Rangeland Health would be incorporated into livestock grazing permits.
- Implement the *Revised Guidelines for Management of Domestic Sheep and Goats In Native Wild Sheep Habitats* to protect bighorn sheep.

- Continue implementation of existing allotment management plans including the associated range improvement projects and develop and implement new allotment management plans to direct site specific management of livestock as evaluated through the priority watershed assessment process for rangeland health.
- Incorporate strategies from *Best Management Practices for Grazing* by the Montana Department of Natural Resource Conservation (1999) where applicable.
- Conduct use supervision within staffing capabilities.
- Continue management of jointly managed Forest Service-BLM allotments under the Beaverhead-Deerlodge National forest and Butte District BLM Memorandum of Understanding for cooperative management.
- During drought conditions, normal grazing schedules and livestock management practices may need to be modified.

The preferred alternative (B) makes these additional authorizations:

- Make 852,778 acres available for managed livestock grazing. Approximately 48,448 acres would not be available for livestock grazing.
- Allocate 113,219 AUMs on 425 allotments. Use monitoring to adjust allocations by allotment in order to meet the Standards for Rangeland Health. Impose reductions in graduated steps. Allocate increases after interdisciplinary review. Potential reductions in AUMs ranging from 0-11 percent (101,183 AUMs), or other changes in operations would occur with full implementation of the plan.
- No term grazing permits or leases would be authorized in the following areas:
  - Unalloted areas
  - Blue Lake
  - Eli Springs
- Currently unleased lands, acquired lands, and relinquished or cancelled allotments would be evaluated to determine if they would be designated as resource reserve allotments, reallocated, or classified as unavailable for livestock grazing. Priority would be given to designating resource reserve allotments where the need exists.
- Maintain the cross and exchange allotments as resource reserve allotments.
- Establish allowable use levels for grazing allotments during the watershed assessment process.
- Adjust grazing as part of the allotment management planning process to protect or enhance BLM sensitive plants when *Western Montana Standards for Rangeland Health* are not being met or when monitoring shows BLM sensitive plants are being impacted.
- Adjust grazing as part of the allotment management planning process to protect or enhance fish habitat when livestock grazing is a contributing factor to not meeting *Western Montana Standards for Rangeland Health*. Adjust grazing or implement projects to protect concentrated spawning areas in 99 percent pure and above westslope cutthroat trout streams.
- Treatment areas will be rested from livestock grazing up to one year prior to treatment if necessary to maintain fuels for burning and for a minimum of two growing seasons

following treatment actions to promote recovery of vegetation. Livestock rest for less than two growing seasons may be justified on a case-by-case basis based on sound resource data and experience.

- Small and isolated aspen restoration treatments will have management design to reduce or eliminate browsing impacts until aspen regeneration is a minimum of five feet tall on average.
- Provide a minimum 12-inch residual emergent wetland vegetation on all wetland and waterfowl production areas in the Centennial Valley.
- Maintain cattle as primary class of livestock on mountain mahogany habitat. Sheep grazing on mountain mahogany habitats will be mitigated through specific grazing treatments, or where necessary, eliminated.

Minerals resources management includes three mineral categories: leasable, locatable, and material. Leasable minerals include coal, oil, gas, and geothermal resources. Leasable minerals are administered by leasing sub-surface rights to explore and develop infrastructure to access potential resources. Locatable minerals such as gold, copper, and phosphate are first located by the extractor who then files a claim for the exploitation of resources that have been found. Mineral materials such as gravel and rock are administered through the issuing of permits to collect it. Activities associated with mineral extraction include construction of roads and supporting structures, use of hazardous chemicals, water use and treatment.

The following actions and allocations for leasable minerals are planned:

Oil and gas leasing:

- Follow interim management policy and guidelines for mineral leasing in wilderness study areas as appropriate.
- All BLM lands available for oil and gas leasing will be offered first by competitive bid at an oral auction.
- Appropriate stipulations, terms, and conditions will be applied at the time of leasing.
- Manage 281,829 acres as open to leasing, subject to standard lease terms.
- Manage 575,223 acres as open to leasing, subject to minor constraints.
- Manage352,228 acres as open to leasing subject to major constraints.
- Manage 145,554 acres as closed to leasing in the following areas:
    - 9 wilderness study areas
    - Bear Trap Wilderness
    - National Historic Landmarks
    - Lands Administered by Agricultural Research Service

Coal and oil shale leasing:

- Consider proposals for coal or oil shale leasing on a case-by-case basis for all federal mineral estate within the planning area.

Solid mineral leasing:

- Manage an estimated 1,230,599 acres of federal mineral estate as open for solid mineral leasing.
- Manage an estimated 124,235 acres as closed to solid mineral leasing.
- Monitor reclamation of phosphate mine in the Centennial Mountains.

Geothermal leasing:

- Lands in the planning area would be available for geothermal leasing, unless located within wilderness or wilderness study areas or instances where it is determined that issuing the lease would cause unnecessary or undue degradation to BLM lands or resources.

Geophysical exploration:

- Review notices of intent to conduct geophysical exploration and develop mitigation measures so as not to create undue and unnecessary degradation.
- Apply travel limitations as described on Maps 44 and 45 to oil and gas geophysical exploration and consider exceptions as described in Appendix I of the Environmental Impact Statement on a case-by-case basis.
- Use oil and gas lease stipulations as starting point to develop mitigation measures for each notice of intent. Consider geophysical exploration in areas closed to leasing or with no surface occupancy and/or timing restrictions based on the nature of impacts identified in site-specific analysis.

Locatable minerals development:

- Coordinate with Montana Department of Environmental Quality during the review and approval of mining operations.
- Within constraints of mining law, apply terms and conditions to all areas open to locatable mineral entry to meet the *Western Montana Standards of Rangeland Health*.
- Analyze all recommendations regarding disposal or withdrawal of lands on a case-by-case basis for mineral potential (i.e. mineral character) of each tract before any decision is finalized.
- Comply with all state and Federal laws. Continue administration of locatable minerals as required by law and regulation (43 CFR 3809).
    - Review and process notices and plans of operation to ensure that the proposed action does not create unnecessary or undue degradation of the environment.
    - Conduct at a minimum annual compliance inspections on each active notice and plan of operation.
    - Allow casual use where work is done by hand and no explosives are used. Refer inquiries to appropriate agencies for further guidance on other permit requirements.
- Manage approximately 30,000 acres of federal mineral estate currently withdrawn as closed to locatable mineral entry.
- Withdraw 2,705 acres from locatable mineral entry in the following areas:
    - Axolotl Lakes acquisition (400 acres)

- Christnot Mill (20 acres)
- Developed recreation sites (797 acres)
- Lewis's Lookout (160 acres)
- Land along Madison River between Warm Springs and planning boundary (1,609 acres)
- Road Agent Rock (10 acres)
- Squirrel Rock (10 acres)
- Wedding Ring Rock (10 acres)

- Manage federal mineral estate underlying recreation and public purposes conveyances as unavailable for mineral entry. Manage the remainder of split federal mineral estate as open to locatable mineral entry, subject to the provisions of 43 CFR 3814.

Mineral Materials:

- Maintain currently authorized mineral material sites unless circumstances dictate they should be closed.
- Manage 136,214 acres as closed to mineral material disposal in the following areas:
  - Bear Trap Wilderness
  - Centennial Sandhills
  - Christnot Mill
  - Developed recreation sites
  - Lands within + mile either side of Big Sheep Creek Road, except in sections 26 and 35 in T14S, R10W and section 2 in T15S, R10W.
  - Lewis's Lookout
  - All wilderness study areas (except Tobacco Root Tack-Ons
- Manage 765,012 acres of BLM-administered land as open to mineral material disposal.
- Consider new locations outside of closed areas on a case-by-case basis.
- Apply terms, conditions, or other special considerations needed to protect resources in open areas, as identified in Appendix H of the draft environmental impact statement.

Renewable energy resources will be developed from sources such as wind, biomass, solar, and low impact hydropower while minimizing adverse impacts to other resource values. Management provisions associated with renewable resource development includes:

- Proposals for renewable energy development would be analyzed on a case-by-case basis.
- Although no areas would be specifically designated for renewable energy development, opportunities for such development would be provided to the extent consistent with other goals, objectives, and requirements of the plan.
- For renewable energy projects requiring rights-of-way, take into account designated right-of-way avoidance and exclusion areas as well as designated right-of-way corridors and use areas.

Transportation facilities would be managed to provide for public access or administrative needs, while maintaining or protecting resource values.

- Inventory system roads and other facilities and maintain to BLM standards within assigned maintenance levels and to meet public health and safety requirements.
- Maintain non-system roads on a case-by-case basis.
- Analyze new road or facility construction on a case-by-case basis.
- Construct new temporary roads to minimum standards necessary.
- Close and rehabilitate non-essential roads where problems exist, if the expenditure of funds is justified.

Motorized travel will be managed to provide recreational experiences while maintaining or protecting resource values.

- Across all alternatives BLM will promote the use of shared trails whenever possible.
- Travel in the Centennial Mountains would be managed in accordance with the *Centennial Mountain Travel Management Plan* approved in February 2001.
- Development or construction of motorized and/or mountain bike routes are acknowledged within this plan as a future need and will be considered in area-specific planning.
- Opportunities for motorized travel have been identified in the south end of the Pioneer Mountains to create loop routes to connect BLM and Forest Service roads.
- Designate 0 acres as open, 854,250 acres as limited, and 46,976 acres as closed to off highway vehicle use.
- Designate 1,276 miles of road across BLM as open to off highway vehicle use.
- Designate 822,844 acres as open to snowmobile use and 78,402 acres as closed to snowmobile use.
- Allow for exceptions to designated route travel as identified in Appendix I of the Draft Environmental Impact Statement.

Fire and fuels management actions include the suppression of wildfire and prescribed fire used to meet resource management objectives. Prescribed burning is used for fuels management for wildfire hazard reduction (underburning), restoration of desired vegetation conditions, management of habitat and silvicultural treatments, i.e., site preparation (broadcast burning or pile burning). Pump chances, or water withdrawal sites, are created as water sources for fire suppression. Usually located next to roads, these sites are typically small excavated ponds or short spurs for vehicle access to streams or lakes.

Wildland fire will be managed to provide the appropriate response on all wildland fires with an emphasis on firefighter and public safety. When assigning priorities, base decision on relative values to be protected commensurate with fire management costs.

- The Beaverhead-Deerlodge National Forest and the Montana Department of Natural Resource Conservation will implement fire preparedness, prevention, and suppression on BLM land through the interagency offset and six party fire protection agreement.

- Implement an aerial detection plan in cooperation with other fire management agencies.
- Restrict equipment use in wilderness and wilderness study areas in accordance with minimum impact suppression tactics. Follow the interim management policy and guidelines for lands under wilderness review (H-8550-1).
- Manage naturally ignited wildand fires in the Bear Trap Unit of the Lee Metcalf Wilderness Area under the prescription guidelines established in the *Bear Trap Unit of the Lee Metcalf Wilderness Area Fire Management Plan.*
- Fire management activities would be prioritized by their risk to life and property across the planning area. Fires that are adjacent or near wildland urban interface would have the highest priority for fire suppression. Refer to Appendix J of the *Draft Environmental Impact Statement* for Fire Management Zone and Category descriptions.
- Take appropriate management response on all man-caused and natural fire in accordance with Fire Management Categories A through D.
    - Designate approximately 37,573 acres as Fire Management Category A.
    - Designate approximately 72,867 acres as Fire Management Category B.
    - Designate approximately 776,925 acres as Fire Management Category C.
    - Designate approximately 13,665 acres as Fire Management Category D.

Prescribed fire will be managed to restore and maintain desired ecological conditions and fuel loadings.

- Restrict equipment use in wilderness and wilderness study areas in accordance with minimum impact suppression tactics. Follow the interim management policy and guidelines for lands under wilderness review (H-8550-1).
- Place priority on fuels reduction in wildland urban interface areas.
- Prioritize treatments based on comparing historical fire regimes and current fire severity.
- Maintain fire dependent ecosystems and restore those outside their natural balance through mechanical, chemical, and prescribed fire treatments.
- Coordinate all vegetation treatment projects with FWP and adjacent landowners.
- Allow wildland fire from natural ignitions to burn for resource benefits within Confinement Area A and Confinement Area B until acreage limitations are met.
- Use prescribed burning to treat warm/dry forested habitat types and conifer encroachment within wilderness study areas to enhance wilderness values and mimic natural fire regime and restore the role of fire to the wilderness study areas.

Fire rehabilitation will be used to mitigate the adverse effects of fire on the soil, vegetation, and water resources in a cost effective manner. The plan will Implement emergency fire rehabilitation activities as specified in Appendix J of the *Draft Environmental Impact Statement.*

The BLM will use special management designations of Areas of Critical Environmental Concern to protect relevant and important values and apply special management where standard or routine management is not adequate to protect the values from risks or threats of damage/degradation or to provide for public safety from natural hazards.

- Designate 8 areas totaling 82,743 acres as Areas of Critical Environmental Concern in need of special management, including:
    - Beaverhead Rock
    - Block Mountain
    - Blue Lake
    - Centennial Mountains
    - Centennial Sandhills
    - Everson Creek
    - Muddy Creek/Big Sheep Creek
    - Virginia City Historic District

Designated wilderness areas will be managed for the preservation of natural conditions and processes, and to provide opportunities for solitude or a primitive and unconfined type of recreation. Manage the Bear Trap Unit of the Lee Metcalf Wilderness as designated wilderness according to direction provided by the BLM Manual H-8560-1, *Management of Designated Wilderness Areas*. Implement the *Wilderness Management Plan for Bear Trap Canyon Unit of Lee Metcalf Wilderness* (USDI-BLM 1984a) and the *Limits of Acceptable Change Management Direction, Bear Trap Canyon Unit* (USDI-BLM 1991).

Wilderness study areas will be managed so as not to impair their suitability for preservation as wilderness until such time as Congress either designates them as wilderness or releases them from further study.

- The Farlin Creek wilderness study area studied under Section 202 of the Federal Lands Policy and Management Act as well as all wilderness study areas studied under Section 603 of the Federal Lands Policy and Management Act would continue to be managed according to the Interim Management Policy to meet the non-impairment standard until such time as Congress either designates them as wilderness or releases them from further consideration as wilderness. Those areas designated wilderness by Congress will be managed according to a wilderness management plan written specifically for that area. Those areas released from further consideration as wilderness would be managed consistent with prescriptions identified in the release provisions specified in Appendix M of the *Draft Environmental Impact Statement.*
- Release the Tobacco Root Tack-on wilderness study area, studied under Section 202 of the Federal Land Policy and Management Act of 1976, from interim management and manage lands as provided for in the proposed plan.

Land exchanges and acquisitions are made to benefit a variety of uses and values. Land tenure adjustments are made to improve public access, acquire important habitats or resources and improve the efficiency of managing Federal lands. Lands and Realty allocations in the Dillon planning area will be made according to 4 goals.

Goal 1 – meet public right-of-way needs:

- Analyze requests for land use authorizations and apply mitigation measures on a case-by-case basis.
- Do not issue land use authorizations for uses which would involve the disposal or storage of materials which could contaminate the land (hazardous waste disposal sites, landfills, etc.)
- Locate new right-of-way facilities within or adjacent to existing rights-of-way to the extent practical.
- Group new communication site users into suitable existing sites to reduce impacts and expedite application processing.
- Complete a site plan prior to authorizing communication site uses in new areas.
- Consider the use of alternative energy sources where electric power is not available.
- Allow owners of non-Federal land surrounded by BLM land managed under Federal Land Policy and Management Act a degree of access across BLM land which will provide for the reasonable use and enjoyment of the non-Federal land.
- Do not require right-of-way, leases, permits, or easements for casual use activities. Recognize pre- Federal Land Policy and Management Act rights-of-way constructed on BLM lands even though the authorities authorizing these uses have been repealed (i.e., 1866 ditches and canals, RS 2477 roads, etc.).
- When feasible, require distribution lines to be buried on BLM lands when within + mile of each side of the Madison River to preserve scenic quality.
- Abate realty-related unauthorized use through prevention, detection, and resolution.
- Upon settlement of trespass liability, resolve unauthorized use of BLM lands by termination, authorization, or sale or exchange, as appropriate.
- Interim management policy and guidelines for land use authorizations in wilderness study areas would be followed as appropriate.
- Reclaim sites affected by unauthorized use as determined necessary.
- Implement the "Suggested Practices for Raptor Protection on Power Lines" (APLIC 1996) and the Service's "Interim Guidance to Avoid and Minimize Wildlife Impacts from Wind Turbines" (USFWS 2003).
- Designate five (5) right-of-way use areas for communication sites (Armstead Mountain, Maurer Mountain, Pipe Organ, Bear Trap and Virginia City Hill). Encourage applicants for communication site facilities to locate within these use areas. Site plans would be developed for each of the above listed designated communication sites use areas and updated periodically as necessary.
- Designate two right-of-way corridors across the planning area as delineated in the 1992 Western Regional Corridor Study. Nominal corridor width would be 1,320 feet (1/4 mile) on each side of centerline of existing facilities, except where the alignment forms the boundary of a Special Management Area, where the width would be 2,640 feet (1/2 mile) on the side opposite that boundary. Encourage location of all electrical transmission lines 69 kV and greater and pipelines 10 inches and greater within designated corridors.
- Designate the Bear Trap Wilderness (6,347 acres) as an exclusion area.

- Designate the following areas as avoidance areas:
  - 9 Wilderness Study Areas
  - Lewis & Clark Trail

  A total of 123,286 acres.

Goal 2 – Retain BLM lands with high resource values in public ownership. Adjust land ownership to consolidate BLM land holdings, acquire lands with high public resource values, and meet public and community needs.

- Public access would be maintained or improved through all land ownership adjustment transactions.
- Newly acquired lands would be managed for the highest potential purpose for which they are acquired.
- Limit direct purchase of lands to cases where no practical alternatives exist and high public values would be acquired.
- Lands acquired within special management areas with specific Congressional mandates (such as National Trails and Wilderness Areas) would be managed in conformance with established guidelines for those areas.
- Lands acquired within administratively designated special management areas such as Areas of Critical Environmental Concern and Special Recreation Management Areas which have unique or fragile resources would be managed the same as the special management area.
- Lands acquired without special values or management goals would be managed in the same manner as comparable surrounding BLM lands.
- Lands and interests in lands obtained with Land and Water Conservation Fund appropriations would not be available for disposal by any means.
- Establish three (3) adjustment categories.
  - Manage 142,000 acres in Category 1 for retention and allow no disposal.
  - Manage 756,000 acres in Category 2 for retention but allow limited adjustment.
  - Manage 4,000 acres in Category 3 as available for potential disposal.
- Consider applications for Recreation and Public Purposes transfers and airport grants in Categories 2 and 3 on a case-by-case basis.
- No lands administered by the Dillon Field Office would be available for state grants, agricultural entries, or Indian allotments.
- Consider acquiring, from willing parties, lands that meet the acquisition criteria in Appendix F of the *Draft Environmental Impact Statement*.

Goal 3 – Acquire and maintain access to BLM land:

- Use all methods available to acquire access from willing parties.
- In conveyance documents associated with land ownership adjustments, maintain existing access to BLM lands using covenant language.
- Acquire legal public or administrative access from willing landowners on a case-by- case basis as the need or opportunity arises. Focus acquisition of access by various means on

routes designated as open in the travel plan that lack legal public access, and in areas classified as Category 1 and 2 for retention.

Goal 4 – Utilize withdrawal actions with the least restrictive measures and minimum size necessary to accomplish the required purposes.

- Review existing withdrawals on a case-by-case basis prior to the end of the withdrawal period or as otherwise required by law to determine whether the withdrawals should be extended, revoked, or modified.
- Withdrawals no longer needed, in whole or in part, for the purpose for which they were withdrawn would be revoked or modified.
- Consider other agency requests for withdrawal relinquishments, extensions or modifications on a case-by-case basis.
- New withdrawal proposals where the public land would transfer from one federal agency to another or where resource values or agency investments are best protected by withdrawal would be considered on a case-by-case basis.
- Lands proposed to be withdrawn should be the minimum area required for the intended use and where applicable alternative prescriptions such as the use of rights-of-way, leases, permits, or cooperative agreements are inadequate to protect the resource values.
- Terminate the current classification on five acres of BLM land at Road Agent's Rock.
- Review existing classifications on a case-by-case basis to determine if they should be continued or terminated.

The Service assumes that effects to listed species of the proposed action in the final Record of Decision will be virtually identical to those analyzed in the Biological Assessment of alternative B in the *Draft Environmental Impact Statement* of March 2004, used to prepare this opinion. Further the Service assumes that the *Appendix D: Fish and Wildlife (including Special Status Species)* of the Draft Environmental Impact Statement will be fully implemented as outlined in that document. Any changes incorporated into the *Final Environmental Impact Statement* that result in significantly changed effects or impacts to listed species not analyzed in this opinion will require additional consultation from the Service.

The following summery of management goals, objectives and direction for the Dillon BLM resource management plan was extracted from the *Biological Assessment, Bureau of Land Management, Dillon Resource Management Plan Threatened, Endangered, Proposed, and Candidate Species, March 2004.*

Animals

Goal 1–Improve or provide habitat to bring listed and candidate species that use BLM lands to population levels at which the measures required by the Endangered Species Act are no longer necessary; i.e., to recovery or downlisting status.

Goal 2–Ensure the long-term, self-sustaining persistence of special status animal, plant and fish species in the Dillon Field Office.

Desired future habitat condition:

- Special status wildlife, fish and plant species and habitats are distributed across the landscape at levels appropriate to reduce or eliminate the need for their special status management.
- Manage wetland habitats to support a healthy diversity and abundance of dependent wildlife species, with emphasis on special status species needs.
- Manage forested and sagebrush habitat within the historic range of variability for vegetation composition, canopy and structure to support a diversity and abundance of dependent wildlife species, with emphasis on special status species needs.
- Provide suitable habitat and condition to allow wildlife, species movement between large blocks of habitat, and seasonal and special habitats on a localized and landscape scale.

Management common to all alternatives

All management actions would be consistent with the Endangered Species Act and Bureau policy to ensure that habitat is provided for special status species, and proposed actions do not jeopardize the continued existence of a threatened, endangered, or candidate species, or cause its habitat to be adversely modified or destroyed. Sensitive species would be treated as candidate species for project impact analysis. Biological evaluations would be completed for proposed projects for all Dillon planning area special status species. Consultation with the Service would occur when impacts are anticipated to threatened, endangered, or candidate species, or designated habitat.

Cooperative implementation and monitoring of recovery plans, State of Montana management plans, and conservation strategies would continue for bald eagle, grizzly bear, wolf, Canada lynx, peregrine falcon, and sage grouse. As Canada lynx habitat information is refined, lynx analysis units (LAUs) with insufficient potential habitat to support a home range of a breeding female lynx will be modified or dropped. State of Montana management plans for grizzly bear and wolf would be implemented in coordination with the State and other appropriate agencies once the species is delisted by the Service. Conservation strategies for unlisted sensitive species would be used as the basis for evaluating land use authorizations and activities. BLM Dillon Field Office would continue to coordinate with APHIS Wildlife Services regarding depredation management on BLM land.

Meeting Western Montana Standards for Rangeland Health will generally enhance habitat for all special status species. Achieving these standards will provide proper functioning conditions on all upland and riparian/wetland habitats, meet State of Montana air and water quality standards, and provide necessary habitat to maintain viable and diverse populations of native plant and animal species, including special status species. Site-specific objectives and management strategies to meet these standards would be developed and applied through implementation of activity plans.

Preferred Alternative – Alternative B
Wildlife migration/dispersal corridors that provide connectivity for special status species such as lynx, grizzly bear, and wolf (as well as wildlife in general) would be managed to reduce conflicts between listed species and land use authorizations and activities.

Management actions would include:

- Evaluate projects and authorizations proposed on BLM lands in this area that may increase habitat fragmentation, create physical barriers to movement, or potentially increase mortality. If individual proposed projects could potentially affect a listed species, consultation with FWS is required.
- Consider food storage strategies from the Southwest Montana State Grizzly Management Plan on BLM lands in the Grizzly Bear use areas outside of the Yellowstone Recovery Zone until grizzly bears are delisted, and implement them upon delisting. Monitor the South Madison campground and undeveloped sites in the East Fork of the Blacktail and the Axolotl Lakes area for food storage problems related to grizzly bear use and the potential need for bear proof trash containers. Major BLM land trailheads and access points in these areas and in the Centennial Mountains would be posted to advise recreationists about proper food storage to avoid back country conflict.
- Amend grazing permits in these areas to state that depredation losses are possible.

These actions would apply to all BLM lands that contain relatively intact habitat and that occur in migration corridors between units of the Beaverhead-Deerlodge National Forest. These primary linkages are located between:

- North Gravelly Range to Tobacco Root Mountains (Virginia City Hill)
- South Madison Range to Gravelly Range to Blacktail Ridge
- The Continental Divide from Red Rock Pass to Lemhi Pass, including the Tendoy Mountains and Jeff Davis/Maiden Peak area
- Bloody Dick /Big Hole Divide to the West Pioneer Mountains.

National and Montana sage grouse conservation strategies would be used as the basis to address habitat management in the watershed planning process and for project level analyses. Desired future conditions of sagebrush habitats that are important for sage grouse are described in the sagebrush steppe habitat section.

Potential impacts to habitat for bats, amphibians and reptiles, and sensitive species would be considered on a case-by-case basis during project and activity planning. Proposals for aerial application of chemical herbicides or pesticides would emphasize protection of occupied pygmy rabbit habitat and sage grouse breeding habitat. Activities contributing to the loss or mechanical damage of Basin big sagebrush and Wyoming big sagebrush "stringer" habitat would not be authorized.

Actions to restore, enhance and maintain habitats for migratory birds, including special status bird species, would be implemented through cooperative joint venture programs under the North American Bird Conservation Initiative. Under this alternative, all bird species determined to be "Birds of Conservation Concern" within the Service's Region 6 would be considered in biological evaluations conducted for projects. Disturbance in habitats that sustain these species would be minimized during spring breeding seasons. Vegetation treatments using prescribed fire would only be conducted during the late summer or fall after migratory bird breeding is completed unless impacts could be mitigated.

Ferruginous hawk breeding habitat would be managed to maintain nesting structures, sagebrush/grassland interspersion and enhance prey abundance. Within the Lima Foothills and Sweetwater Breaks key raptor management areas, proposed authorized activities would be evaluated for potential disturbance during the breeding season, and activities would be limited from March 1 through August 31 within one-half mile of nest sites on a case-by-case basis. No surface disturbances that would alter physical structures used by nesting ferruginous hawks (cliffs, rock outcrops, etc.) would be authorized within the boundaries of this area.

Management of the following general habitats is designed to benefit a wide array of wildlife which will provide indirect benefits for potential use by special status species.

Coniferous Forest Habitat
Sustained activities of more than one week in duration associated with vegetation treatments including, but not limited to, broad-scale burning and mechanical treatments would occur in no more than two adjacent 6th order hydrologic units at a time to minimize big game displacement. These adjoining units would be maintained as disturbance-free as possible during operations. Vegetation treatments using prescribed fire would include site specific treatment strategies to minimize impacts during the breeding season of migratory birds.

Travel management designations would minimize wildlife displacement and habitat fragmentation, particularly in sagebrush/grassland habitats. When assessing new road proposals, one mile of open road per square mile would be a target road density within a defined project level cumulative effects area. Where a greater density of short term temporary roads would be necessary to support specific projects, new project roads and existing roads would be evaluated at project completion and, if necessary, designations changed to provide the most appropriate access routes in consideration of wildlife needs. All other routes would be closed, revegetated, and /or recontoured.

Sagebrush Steppe Habitat
National and Montana sage grouse conservation strategies will be used as the basis to address habitat management in the watershed planning process and for project level analysis.

Sagebrush habitats would be managed so that 70 percent or more of potential big sagebrush communities provide the vegetation composition and structure capable of supporting sage grouse and other wildlife species that use sagebrush habitat. More than 5 percent sagebrush canopy

would be provided on sage grouse breeding and winter habitat, with 60-70 percent of that habitat having greater than 15 percent sagebrush canopy. This would manage approximately 300,000 acres of mountain shrub and xeric shrub habitat types to have canopies of 15 percent or greater. Sage grouse breeding habitat would also provide at least 30 percent canopy of perennial grasses and forbs, with an average 7" height of residual and/or current year's herbaceous plant growth present May 15 through July 1. Sagebrush canopy greater than 15 percent would be provided on at least 40 percent of sage grouse summer/fall and mule deer/antelope winter habitats (approximately 107,000 acres of mountain shrub and xeric shrub habitat types). Wildfire suppression efforts would focus on protecting large stands of sagebrush with greater than 15 percent canopy that are isolated from other dense stands.

New road proposals within sagebrush steppe habitat would be considered as described under coniferous forest habitat section of this alternative to minimize wildlife displacement and habitat fragmentation.

Siting of new power lines, wind generation towers, or communication facilities would be consistent with sage grouse conservation strategies to minimize impacts to sage grouse or important sagebrush habitat.

Riparian Wetland Habitat

Wildlife needs would continue to be considered on a case-by-case basis for any proposed projects in riparian/wetland habitat. Axolotls in Blue Lake and their habitat would continue to be protected by maintaining the lake fish-free, excluding livestock grazing, timber harvest, wheeled vehicle use, and any other activities within the lake's watershed that could lead to the increased input of sediment or organic materials that could contribute to increased water temperature of Blue Lake.

Riparian management would be designed to achieve desired future conditions or initiate a strong upward trend in 20 years by increasing the amount of properly functioning habitat from an existing 18 percent to 50 percent decreasing functional-at-risk habitat from an existing 59 percent to 30 percent, and reducing nonfunctional habitat from an existing 23 percent to 20 percent. A full array of management actions could be implemented to meet desired future conditions, but in order to meet the proposed timeframe, actions focusing on reducing the duration of riparian impacts, such as limiting grazing treatments to less than 30 days, would be necessary.

Management will emphasize maintenance of riparian communities on approximately 415 miles of stream dominated by a tall deciduous shrub or aspen/cottonwood habitat types and on approximately 500 miles of stream dominated by herbaceous and coniferous habitat types (based on 2002 inventory summary).

Of the eight areas recommended for designation as Areas of Critical Concern, management of the following two areas is related to species addressed in the BA:

- Blue Lake (430 acres)
  The relevant and important value is the presence of the axolotl in Blue Lake. Activities contributing to nutrient enrichment or increased water temperature would not be authorized within this area. Barriers to prevent unauthorized travel into the area would be placed or constructed and no surface occupancy would be required for mineral leasing. Livestock grazing would be eliminated under standard management of this alternative. Interpretive materials about the axolotl would be developed at appropriate locations to inform the public of this special value.
- Centennial Mountains (40,715 acres)
  Relevant and important values are threatened, endangered, and sensitive species habitat and wildlife movement/migration corridors. Landscape design principles would be incorporated into any vegetation treatment. No new permanent roads would be allowed in the area to maintain current unfragmented habitat for wildlife migration. Any proposed winter recreational use would be evaluated, and any associated backcountry helicopter operations could be denied, depending on the evaluation. Livestock use would continue based on permit stipulations and approved allotment management plans. Grazing plans would be amended to state that livestock depredation losses are possible. Any proposed changes in grazing, including time and intensity of use, would be evaluated for impacts on the relevant and important values and would be permitted if the values would be maintained or enhanced. However, grazing permits could not be converted from cattle to sheep.

Fish

Goal 1 – Ensure the long-term, self-sustaining persistence and maintain the genetic diversity of the individual populations of westslope cutthroat trout in the Dillon Field Office. Ensure the long term self-sustaining persistence of fluvial and adfluvial arctic grayling in the Dillon Field Office area.

Desired Future Habitat Condition:

- Streams have sufficient flows provide habitat diversity and conditions that support cold-water fisheries
- A diversity of instream habitat structure is present
- Composition and quantity of streambed materials are appropriate for site potential
- Riparian vegetation and stream channel morphology contribute to maintaining appropriate water temperatures (generally <70F).
- Macroinvertebrate diversity and abundance reflect high water quality.

The BLM would continue to participate in implementation of the MOU and Conservation Agreement for westslope cutthroat trout, and participate in implementation of the Restoration Plan for Montana fluvial arctic grayling. This participation would also include initiating and performing long-term fish habitat and water quality surveys to document and monitor trends in fishery habitat.

The BLM would initiate habitat restoration on special status species fishery streams that are Functioning-At Risk or Nonfunctional, and develop a cooperative agreement with Fish, Wildlife and Parks for adequate protection and access to the fluvial arctic grayling brood pond within the Axolotl Lakes area.

Plants
Goal 1 – Identify, conserve, and monitor rare, vulnerable, and representative habitats, plant communities, and ecosystems to ensure that there is a self-sustaining persistence of special status plants within the planning area.
Goal 2 – Ensure that proposed land uses initiated or authorized by BLM avoid inadvertent damage to federal and non-federal habitats supporting special status plants and plant communities.
Goal 3 – Promote public awareness, appreciation and understanding of rare plants and their habitats.

BLM would continue to assist in maintaining Montana's web-based rare plant field guide, and staff would assist with programs and training sessions to educate weed crews to recognize and avoid special status plants and their habitats.

Monitoring and inventory, and research studies, on special status plants and associated plant communities would continue. The potential effects on BLM sensitive plants would be considered during project level planning with appropriate mitigation measures recommended.

Field inspections to identify special status plant species would be conducted prior to authorizing surface disturbing activities. Waivers for on-the-ground inventory would be granted in areas determined to have low potential based on previous research.
Beyond the actions provided under Management Common to All Alternatives, management would not allow activities that disturb mineral soil such as blading, plowing, ripping, chaining, etc. within the boundaries of populations of BLM special status plants. Management would be adjusted on a case-by-case basis when Standards for Rangeland Health are not being met or when monitoring of BLM special status plants indicates unacceptable impacts.

Habitat management plans and conservation strategies would be developed under this alternative, in concert with watershed assessments, for BLM special status plant species and habitats that occur on BLM land. In riparian habitats, priority would be placed on the following species:

- *Carex idahoa*
- *Primula alcalina*
- *Taraxacum eriophorum*
- *Thalictrum alpinum*

III. DETERMINATION OF EFFECTS OF THE ACTION ON CANADA LYNX, BALD EAGLE, UTE LADIES' TRESSES, MONTANA ARCTIC GRAYLING, AND GRAY WOLF

Ute ladies' tresses

The Service concurs with the Dillon BLM's determination that the proposed plan may affect, but is not likely to adversely affect Ute ladies'-tresses based on the following points:

- Ute ladies'-tresses have not been found on federal lands in the planning area despite surveys in the most suitable habitats. It is therefore unlikely that Ute ladies'-tresses occur on Dillon BLM administered lands.
- Should as yet undiscovered populations persist on BLM lands, plants and their habitat will be afforded some protection through BLM wetland management. Proposed management strategies to restore degraded riparian and wetland habitats rely on implementing BLM's *Standards and Guidelines for Rangeland Health* on a watershed by watershed basis. Under the proposed action, the amount of properly functioning riparian and wetland habitat on BLM land would increase from 18 percent to 50 percent at the end of 20 years. This would provide stable riparian and wetland conditions with the appropriate vegetation composition, structure and density for the site which would represent enhanced habitat suitability for Ute ladies'-tresses.
- To avoid impacts to this species, surveys would be conducted prior to disturbance activities in suitable Ute ladies'-tresses habitat. If Ute ladies'-tresses are found to inhabit specific project locations where ground disturbance would occur, the Service would be consulted prior to any disturbance to identify necessary conservation measures.

Bald eagle

The Service concurs with the Dillon BLM's determination that the proposed plan may affect, but is not likely to adversely affect the bald eagle based on the following points:

- Disturbance to breeding habitat is managed under the guidelines of the *Montana Bald Eagle Management Plan* which minimizes or avoids impacts to bald eagles. Restricting activities during the breeding season within one mile of active nests, should protect nest security and foraging areas, and prevent disturbance or displacement of bald eagles.
- Oil and gas leasing stipulations for no surface occupancy (NSO) within ½ mile of bald eagles and timing limitations between 2/1 through 8/31 within one mile of nests would protect bald eagle nesting territories from habitat modification and disturbance during breeding season.
- New power lines on BLM land would be designed and constructed following Avian Power Line Interaction Committee (1996) guidelines to avoid electrocution
- Existing power lines on BLM lands will be modified to meet Avian Power Line Interaction Committee (1996) standards where electrocution or collision problems have occurred.

- Foraging habitat for eagles would be protected or enhanced. Proposed management strategies to restore degraded riparian and wetland habitats rely on implementing BLM's *Standards and Guidelines for Rangeland Health* on a watershed by watershed basis. Under the proposed action, the amount of properly functioning riparian and wetland habitat on BLM land would increase from 18 percent to 50 percent at the end of 20 years.

The proliferation of new distribution power lines represents a potential electrocution hazard for bald eagles, especially in habitats with few natural perching opportunities. Although using raptor protection measures reduces the potential for electrocutions, unusual events can lead to electrocutions where areas of high power line density and high eagle density coincide. The proposed plan authorizes new power line construction, however, the magnitude of development is expected to be low, and consequently, the risk of electrocution to bald eagles is discountable.

Canada lynx

The Service concurs with the Dillon BLM's determination that the proposed plan may affect, but is not likely to adversely affect the Canada lynx based on the following points:

- Dillon BLM has committed to managing land in accordance with the standards and guidelines in the *Lynx Conservation Assessment and Strategy* (Ruediger et al., 2000).
- BLM will evaluate actions in designated lynx linkage corridors (i.e. not suitable lynx habitat) for impediments to lynx movement. If it is found that lynx movement between large blocks of habitat may be impeded by a proposed project, consultation with the Service may be required. Land uses that may limit movement of lynx include highways, railways, ski areas, and their corresponding residential and resort development. The plan will not result in increases in highways, railways, or ski areas.
    - The primary linkage areas in the planning area are located between:
        - North Gravelly Range to Tobacco Root Mountains (Virginia City Hill)
        - South Madison Range to Gravelly Range to Blacktail Ridge
        - The Continental Divide from Red Rock Pass to Lemhi Pass, including the Tendoy Mountains and Jeff Davis/Maiden Peak area
        - Bloody Dick /Big Hole Divide to the West Pioneer Mountains.
- The Lynx Conservation Assessment and Strategy contains several standards pertinent to BLM management of linkage habitats. BLM has agreed to:
    - Identify key linkage areas that may be important in providing landscape connectivity within and between geographic areas, across all ownerships.
    - Develop and implement a plan to protect key linkage areas on federal lands from activities that would create barriers to movement. Barriers could result from an accumulation of incremental projects, as opposed to any one project.
    - Evaluate the potential importance of shrub-steppe habitats in providing landscape connectivity between blocks of lynx habitat. Livestock grazing within shrub-steppe habitats in such areas should be managed to maintain or achieve mid seral or higher

condition, to maximize cover and prey availability. Such areas that are currently in late seral condition should not be degraded.

The Service has previously determined that most projects following the standards and guidelines of the *Lynx Conservation Assessment and Strategy* are not likely to adversely affect Canada lynx (USFWS 2000). If, through site specific project development, management repeatedly deviates from the standards and guidelines outlined in that strategy, re-initiation of consultation on the resource management plan will be required.

The BLM has determined that the proposed plan is not likely to jeopardize the gray wolf. When BLM makes a "not likely to jeopardize" determination for non-essential/experimental populations, concurrence from the Service is not required, although, we do appreciate receiving a copy of the data used to make that determination for our records.

The gray wolf, Ute ladies' tresses, bald eagle, and Canada lynx will not be considered further in this opinion.

IV. STATUS OF THE SPECIES /CRITICAL HABITAT DESCRIPTION

Grizzly Bears

Species/Critical Habitat Description

Grizzly bears are among the largest terrestrial mammals in North America. South of the US - Canada border, adult females range from 250-350 pounds and adult males range from 400 to 600 pounds. Grizzly bears are relatively long-lived, living 25 years or longer in the wild. Grizzly bears are omnivorous, opportunistic feeders that require foods rich in protein or carbohydrates in excess of maintenance requirements in order to survive seasonal pre-and post-denning periods. Grizzly bears are homeo-hypothermic hibernators, meaning their body temperature drops no more than 5°C during winter when deep snow, low food availability, and low ambient air temperatures appear to make winter sleep essential to grizzly bears' survival (Craighead and Craighead 1972a, b). Grizzly bears excavate dens and require environments well-covered with a blanket of snow for up to five months, generally beginning in fall (September-November) and extending until spring (March-April) (Craighead and Craighead 1972b; Pearson 1975).

Listing history The grizzly bear was federally listed as a threatened species in the lower 48 states on July 28, 1975 (40 FR 31736). The Service identified the following as factors establishing the need to list: (1) present or threatened destruction, modification, or curtailment of habitat or range; (2) over utilization for commercial, sporting, scientific, or educational purposes; and (3) other manmade factors affecting its continued existence. The two primary challenges in grizzly bear conservation are the reduction of human-caused mortality and the conservation of remaining habitat (U.S. Fish and Wildlife Service 1993).

The grizzly bear recovery plan (Recovery Plan) was completed on January 1982 and was revised in 1993 (U.S. Fish and Wildlife Service 1993). The 1993 revised Recovery Plan delineated grizzly bear recovery zones in 6 mountainous ecosystems in the U.S. The Recovery Plan details recovery objectives and strategies for the grizzly bear recovery zones in the ecosystems where grizzly bear populations still persist. These recovery zones are the Northern Continental Divide (NCDE), Yellowstone Grizzly Bear (YGBE), Cabinet-Yaak (CYE) and Selkirk (SE) ecosystems. The Recovery Plan also includes recovery strategies for the North Cascades ecosystem in Washington, where only a very few grizzly bears are believed to remain and for the Selway-Bitterroot ecosystem of Idaho and Montana where suitable grizzly bear habitat still occurs.

Life history The search for energy-rich food appears to be a driving force in grizzly bear behavior, habitat selection and intra/inter-specific interactions. Grizzly bears historically used a wide variety of habitats across North America, from open to forested, temperate through alpine and arctic habitats, once occurring as far south as Mexico. They are highly dependent upon learned food locations within their home ranges. Adequate nutritional quality and quantity are important factors for successful reproduction. Diverse structural stages that support wide varieties of nourishing plants and animals are necessary for meeting the high energy demands of these large animals. Grizzly bears follow phenological vegetative, tuber or fruit development, seek out concentrated food sources including carrion, live prey (fish, mammals, insects), and are easily attracted to human food sources including gardens, grain, compost, bird seed, livestock, hunter gut piles, bait and garbage. Bears that lose their natural fear and avoidance of humans, usually as a result of food rewards, become habituated and may become food-conditioned. Grizzly bears will defend food and have been known to charge when surprised. Both habituation and food conditioning increase chances of human-caused grizzly bear mortality as a result of real or perceived threats to human safety or property. Nuisance grizzly bear mortalities can be a result of legal management actions, defense of human life or illegal killing.

Adult grizzly bears are individualistic and normally solitary, except females with cubs or during short breeding relationships. They will tolerate other grizzly bears at closer distances when food sources are concentrated and siblings may associate for several years following weaning (Murie 1944, 1962; Jonkel and Cowan 1971; Craighead 1976; Egbert and Stokes 1976; Glenn et al. 1976; Herrero 1978). Across their range, home range sizes vary from about 50 square miles or more for females to a few hundred square miles for males. Overlap of home ranges is common. Grizzly bears may have one of the lowest reproductive rates among terrestrial mammals, resulting primarily from the late age at first reproduction, small average litter size and the long interval between litters. Mating occurs from late May through mid-July. Females in estrus will accept more than one adult male (Hornocker 1962), and can produce cubs from different fathers the same year (Craighead et al. 1995). Age of first reproduction and litter size may be nutritionally related (Herrero 1978; Russell et al. 1978). Average age at first reproduction in the lower 48 states for females is 5.5 years and litter size ranges from one to four cubs who stay with the mother up to two years. Males may reach physiological reproductive age at 4.5 years, but may not be behaviorally reproductive due to other dominant males preventing mating.

Natural mortality is known to occur from intra-specific predation, but the degree this occurs in natural populations is not known. Parasites and disease do not appear to be a significant cause of natural mortality (Jonkel and Cowan 1971; Kistchinskii 1972; Mundy and Flook 1973; Rogers and Rogers 1976). As animals highly dependent upon learned habitat, displacement into unknown territory (such as sub-adult dispersal) may lead to inadequate nutrition, reduced reproduction or greater exposure to adult predatory bears or human food sources (which can lead to human-caused mortality). Starvation and loss in dens during food shortages have been surmised, but have not been documented as a major mortality factor. Natural mortality in rare, relatively secretive animals such as grizzlies can be extremely difficult to document or quantify.

Human-caused mortality has been slightly better quantified, but recent models speculate that reported mortality may be up to 50 percent of actual mortality (McLellan et al. 1999). Between 1800 and 1975, grizzly populations in the lower 48 states have declined drastically. Fur trapping, mining, ranching and farming pushed westward, altered habitat and resulted in the direct killing of grizzly bears. Historically, grizzly bears were targeted in predator control programs in the 1930's. Predator control was probably responsible for extirpation in many states that no longer support grizzlies. More recent human-caused mortality in Montana includes legal hunting (canceled in 1991), management control actions, defense of life, vehicle and train collisions, defense of property, mistaken identity by black bear or other big game hunters, poaching and malicious killing. Grizzly bears normally avoid people, possibly as a result of many generations of bear sport hunting and human-caused mortality. Displacement away from human activities has been documented to reduce fitness of grizzly bears, affecting survival in some instances. Avoidance of roads can lead grizzly bears to avoid essential habitat along roads. Not avoiding roads may put them at greater risk of exposure to human-caused mortality.

Status and Distribution

Status of grizzly bears in the YGBE The 9,209 square mile YGBE recovery zone includes portions of Wyoming, Montana and Idaho, portions of six National Forests (Beaverhead-Deerlodge, Bridger-Teton, Custer, Gallatin, Shoshone, and Targhee), Yellowstone and Grand Teton National Parks, John D. Rockefeller Memorial Parkway, portions of adjacent private and state lands and lands managed by the BLM. Grizzly bears also frequently use areas outside the defined YGBE recovery zone.

Population recovery criteria are measured within the recovery zones and an adjacent 10 mile buffer. A large proportion of the Yellowstone grizzly bear population occurs within the recovery zone. A large proportion of the grizzly bears in the Yellowstone recovery zone occur on protected lands in Yellowstone National Park, but grizzly bears also inhabit large areas outside the park boundary. National forest designated wilderness lands comprise 36 percent of the Yellowstone recovery zone. Yellowstone and Grand Teton National Parks make up an additional 40 percent of the Yellowstone recovery zone. Private holdings make up 1.7 percent of the recovery zone and the remaining 23 percent occurs on Forest Service non-wilderness lands (Interagency Conservation

Strategy Team 2000). National Park Service and national forest lands support roughly 89 percent of the currently known distribution of the grizzly bears in the Yellowstone recovery zone. Grizzly bears also frequently occur in and use areas adjacent to the Yellowstone recovery zone.

The YGBE grizzly bear recovery zone is subdivided into smaller units to facilitate both the assessment of projects and recovery objectives. Eighteen bear management units (BMU) were formally delineated throughout the YGBE. BMUs were designed to:

- assess the effects of existing and proposed activities on grizzly bear habitat without having the effects diluted by consideration of too large an area;
- address unique habitat characteristics and grizzly bear activity and use patterns;
- identify contiguous complexes of habitat which meet year-long needs of the grizzly bear; and
- establish priorities for areas where land use management needs would require cumulative effects assessments.

The Recovery Plan defines a recovered grizzly bear population as one that can sustain the existing level of known and unknown human-caused mortality that exists in the ecosystem and that is well distributed throughout the recovery zone. Demographic recovery criteria outlined for the YGBE recovery zone include:

- observation of 15 females with cubs of the year (unduplicated sightings) over a 6-year average both inside the recovery zone and within 10 mile area immediately surrounding the recovery zone;
- sixteen of the 18 BMUs occupied by females with young from a running 6-year sum of verified observations, and with no two adjacent BMUs unoccupied;
- known, human-caused mortality not to exceed 4 percent of the current population estimate (based on most recent 3-year average of females with young);
- no more than 30 percent of the known, human-caused mortality shall be females; and
- the mortality limits cannot be exceeded in more than 2 consecutive years for recovery to be achieved;

The following table (Table 1) reports annual grizzly bear recovery criteria as compared to recovery plan goals for the Yellowstone recovery zone.

Table 1. 2003 Status of the Yellowstone Grizzly Bear Ecosystem in Relation to the Recovery Plan Criteria (Schwartz and Haroldson 2004).

	Target/Limit	2003 Status
Females w/cubs (6-year average)	15	38 (6-year average)
Mortality Limit as 4% of min. est.	16.6	11.2 (6-year average)
Female mortality limit as 30% of total mortality	5.0	4.8 (6-year average)
Distribution of females w/young	16 of 18 BMUs	16 of 18 BMUs

All recovery parameters for the Yellowstone recovery zone were met in 1998, 1999, 2000, 2001, 2002, and 2003 (Schwartz and Haroldson 2004). The reporting process is not complete for 2004, but it is known that the mortality limit set for female grizzly bears in 1993 (4.8) has been exceeded thus far in 2004. As of late September, a total of six female grizzly bear deaths had occurred during 2004 (C. Servheen, USFWS, pers. comm. 2004).

Distribution criteria have not consistently been achieved in YGBE because occasionally adjacent BMUs have lacked observations of females with young. However 18 of 18 BMUs contained verified observations of females with young in at least 2 years of the last 6-year period.

The Recovery Plan identified unduplicated females with cubs as one surrogate index for estimating a minimum number of grizzly bears within a recovery zone. The Recovery Plan does not rely entirely on this minimum population estimate to assess the status of grizzly bear populations. The Recovery Plan incorporates a number of measurable parameters to assess population status, including the number of females with cubs, the distribution of family groups, and the relationship between the minimum population estimate and known, human-caused grizzly bear mortality.

The number of females with cubs has surpassed the recovery criterion for a number of years (Haroldson 2004) and bears now occur where they have not been reported for many years. The six-year running average of females with cubs within the Recovery Zone and a 10-mile perimeter has gradually increased from 15 in 1986 to 38 in 2003 (Haroldson 2004). In 2002, the highest annual count of females with cubs for the GYA was documented: 52 females with 102 cubs (Haroldson 2003). The mean litter size of 2 in 2003 was consistent with past years (Haroldson 2004).

The exact size of the grizzly bear population in the YGBE Recovery Zone is not known. The nature of the species and the rugged terrain it inhabits makes complete population census difficult. Population parameters more readily monitored are used as an alternative index to population size (Knight and Eberhardt 1984). Eberhardt and Knight (1996) used several estimators and calculated a minimum total population size of 245 bears, an estimated population size of 390 bears using

marked females, and an estimated population size of 344 bears using distinct family groups. Population parameters for the YGBE Recovery Zone were summarized as follows in the Final Conservation Strategy for the Grizzly Bear in the Yellowstone Area (Interagency Conservation Strategy Team 2003, page 20): "From the mid 1980s, the Yellowstone grizzly population has grown at approximately 3 to 4 percent or more per year (Eberhardt et al. 1994, Boyce 1995, Boyce et al. 2001). Boyce (1995) has calculated that the Yellowstone population currently has a probability of extinction of 0.0004 (4/10,000)--a very low probability. Nevertheless, as Boyce points out, 'Population size alone is not a sufficient criterion for evaluating population viability,' and 'even though a population may have increased or decreased over the past 10 to 20 years, this offers no indication that the population will continue on the same trajectory in the future.'" Schwartz et al. (in press) state the Yellowstone annual trend estimate to be 4 percent per year. Other trend estimates also exist (Pease and Mattson 1999).

The recovery plan defines a recovered grizzly bear population as one that can sustain the existing level of known and unknown human-caused mortality that exists in the ecosystem and is well-distributed throughout the recovery zone. The Yellowstone grizzly bear population has achieved or has nearly achieved recovery plan goals in recent years. The best available information suggests the YGBE grizzly bear population is stable and is likely increasing. The long term conservation of the population continues to depend largely on managing grizzly bear-human conflict, which often results in human-caused mortality of grizzly bears. Years in which natural grizzly bear food production and availability are high can result in younger age classes of grizzly bears accustomed to fairly good food availability. A year of drought and poor food production can compel grizzly bears to search widely for food. Such wide ranging movements can bring grizzly bears into closer contact with humans, increasing grizzly bear-human conflicts and resultant control/management actions.

Status of grizzly bear populations in CYE and SE. The Cabinet/Yaak Ecosystem in northwestern Montana and northeastern Idaho has over 1,900 square miles of forested and mountainous habitat occupied by grizzly bears. The population in the Cabinet Mountains portion of this area is thought to be less than 15 bears. There is a small yet unknown number of grizzly bears in the Yaak portion of the ecosystem. There are grizzly bears to the north of the US/Canada border, and interchanges of radio-collared bears across the border have been documented (U.S. Fish and Wildlife Service 1993).

The Selkirk Ecosystem of northwestern Idaho, northeastern Washington, and southeastern British Columbia includes about 1,080 square miles in the US portion and about 875 square miles in the Canadian portion of the recovery zone. The Selkirk recovery zone is the only defined grizzly bear recovery zone that includes part of Canada because the habitat in the US portion is not of sufficient size to support a minimum population. The habitat is contiguous across the border and radio-collared bears are known to move back and forth across the border. Therefore, the grizzly bears north and south of the border are considered one population (U.S. Fish and Wildlife Service 1993). Neither the CYE nor the SE grizzly bear populations have ever attained the Recovery Plan criteria for females with cubs. In addition to Recovery Plan monitoring, grizzly bear population trend

analyses were conducted in the early 1990s for the SE, CYE, and the NCDE (Servheen et al.1994). A declining trend was suggested for the SE, but data were insufficient to determine population trends in the CYE and the NCDE (Servheen et al. 1994). Most recent population trend information is statistically inconclusive, though the point estimate of the rate of increase has declined during 1999 to 2000 (Kasworm et al. 2000, Kasworm 2001). The Service determined that the combined SE-CYE grizzly bear recovery zones were warranted endangered but precluded in 1999 and suggested that the two populations might be inter-connected (FR 26725-26733).

Status of the Selway-Bitterroot and North Cascades ecosystems. Grizzly bear recovery efforts in the Selway-Bitterroot Ecosystem and North Cascades Ecosystem are in the planning stages. In the North Cascades Ecosystem, most of the grizzly bear population occurs north of the Canada-U.S. border, but a few grizzly bears persist south of the border. Though suitable habitat remains, grizzly bears were extirpated from the Selway-Bitterroot Ecosystem decades ago. An environmental impact statement and decision notice addressing the impacts of reintroducing grizzly bears into the Bitterroot Ecosystem in east central Idaho was released in 2000 (U.S. Fish and Wildlife Service 2000).

Status of grizzly bears in the NCDE The NCDE extends from the Rocky Mountains of northern Montana into contiguous areas in Alberta and British Columbia, Canada. The U. S. portion of the NCDE includes parts of five National Forests (Flathead, Kootenai, Helena, Lewis and Clark, and Lolo), four wilderness areas (Bob Marshall, Mission Mountains, Great Bear, and Scapegoat) and one wilderness study area (Deep Creek North). National Forest System lands encompass 63 of the NCDE. Additionally, the NCDE recovery zone includes Glacier National Park, the Flathead Indian Reservation (Salish-Kootenai tribal land), the Blackfeet Indian Reservation, adjacent private and state lands, and lands managed by the U.S. Bureau of Land Management. Grizzly bears also frequently use areas outside the defined NCDE recovery zone.

The Recovery Plan outlined demographic criteria for the NCDE similar to those previously described for the YGBE. The exact size of the grizzly bear population in the NCDE is not known. The nature of the species and the rugged terrain it inhabits makes complete population census difficult, if not impossible. Grizzly bear population trend information is limited in the NCDE. During 1987 to 1996, research in the Swan Mountains indicated a tenuous finite rate of increase of .977, which was related to high female mortality (Mace and Waller 1998). Recent survey work in the northern one-third of the NCDE (including Glacier National Park, adjacent national forest and Blackfeet Indian Reservation) suggests that the minimum unduplicated females with cubs population parameter as currently employed underestimates the total number of grizzly bears in this ecosystem.

Monitoring results reported through 1999 indicate that the NCDE grizzly bear population criteria for several population recovery parameters were met, including 1) numbers of females with cubs, 2) numbers of BMUs with family groups, 3) occupancy requirements for BMUs, and 4) total human-caused grizzly bear mortality. Female grizzly bear mortality exceeded recovery criteria limits through 1993, however, and again from 1997 through 2003 (USFWS unpub. data).

Calendar year 2001 was the first year that annual total mortality (6-year average) and annual female mortality (6-year average) were both exceeded.

Habitat fragmentation is significant to large carnivores requiring wide vegetative and topographic habitat diversity (Servheen 1986). Loss and fragmentation of habitat is particularly relevant to the survival of grizzly bears. Grizzly bears are large animals with great metabolic demands requiring extensive home ranges. Movements of grizzly bears may exceed 60 airline miles and their home ranges can encompass from 50 to over 100 square miles in the NCDE. Large expanses of unfragmented habitat are important for feeding, breeding, sheltering, traveling and other essential behavioral patterns. Grizzly bears occur at low densities, have low reproductive rates, exhibit individualistic behavior and are largely dependent on riparian habitats also used extensively by people; thus grizzly bear populations are susceptible to human influences. Grizzly bears may avoid key habitats due to human generated disturbances, or become habituated and food conditioned, which ultimately leads to the animal being destroyed. Historically, as human settlements, developments, and roads increased in grizzly bear habitat, grizzly bear populations became fragmented. As fragmented population segments become smaller and/or isolated, they are more vulnerable to extinction, especially when human-caused mortality pressures continue. Linkage zones are rather recent concepts in broad management direction for grizzly bears and other large-ranging species (Servheen and Sandstrom 1993). Linkage zones, or zones of habitat connectivity within or between populations of animals, foster the genetic and demographic health of the species

Analysis of the Species/Critical Habitat Likely to be Affected

Grizzly bears are listed as threatened under the Act. Activities proposed would occur outside of the Greater Yellowstone Ecosystem Recovery Zone but partly within the current distribution of the grizzly bear. Grizzly bears occupy large home ranges with a variety of nutrient and calorie-rich foods. Habitat connectivity within geographic areas is important for maintaining security, allowing for dispersal, and effective recruitment. Grizzly bears normally avoid people; displacement away from human activities has been documented to reduce fitness of grizzly bears, affecting survival in some instances. Presence of roads can lead grizzly bears to either avoid essential habitat along roads, or could put them at greater risk of exposure to human-caused mortality if they do not avoid roads. Portions of the Dillon BLM planning area have a high or unknown density of existing roads. Based on the existing road density in conjunction with additional temporary and permanent road construction and increased human activity it has been determined that the proposed plan would adversely affect grizzly bears. Critical habitat has not been designated for this species, therefore none would be affected.

V. ENVIRONMENTAL BASELINE

Regulations implementing the Act (50 CFR 402.02) define the environmental baseline as the past and present impacts on grizzly bears of all federal, state or private actions and other human activities in the action area, the anticipated impacts of all proposed federal projects in the action

area that have already undergone formal or early section 7 consultation, and the impacts of State or private actions that are contemporaneous with the consultation in progress.

Status of the Species within the Action Area

The Dillon BLM planning area does not contain land within the Yellowstone grizzly bear recovery zone, however, 87,471 acres of Dillon BLM administered land does overlap with grizzly bear distribution outside the recovery zone (USFS 2002; Jim Roscoe, Dillon BLM Field Office, pers. comm. 2004). Grizzly bear observations on BLM lands in the Dillon planning area were rare until the mid 1990s, and were confined to the Centennial Mountains and areas adjacent to the Gravelly Range. As the grizzly population in the YGBE has increased, bears have expanded into adjoining habitat outside the recovery zone. The Centennial Valley and the area surrounding the Gravelly and Snowcrest Ranges are now considered as an area where grizzly bears are likely to occur as an extension of bear habitat in the YGBE. Within this area, the most suitable habitat is available in BLM wilderness study areas around Axolotl Lakes, E.F. Blacktail, and the Centennial Mountains. The Barton-Idaho area east of Ruby Reservoir provides potential habitat adjacent to occupied grizzly bear habitat on Beaverhead-Deerlodge National Forest lands in the Gravelly Range and Greenhorn Mountains. Other habitat along the Continental Divide, in the Tendoy Mountains including the Maiden Peak area, and the Big Hole Divide support occasional grizzly bear use. Most observations appear to be of individual animals that are simply wandering into potential habitat.

Distribution information about grizzly bears has been derived from interagency monitoring and conservation strategy documents, and discussions with district biologists for adjoining Beaverhead-Deerlodge National Forest lands. The BLM has not conducted any inventories or monitoring specifically to identify grizzly bear occurrences or map suitable habitat on BLM lands. The area where grizzly bears are increasingly likely to occur around the Gravelly range is delineated on a Grizzly Bear Working Group map.

There are several state highways and Federal interstate highways located within the planning area. In some cases roads and highways may serve as a source of direct mortality. In addition, highways with heavy traffic and wide right of ways may serve as a barrier to movement and dispersal between areas of suitable habitat. Interstate 15 runs across the planning area from north to south, presenting an uninterrupted barrier. It is likely that this highway will impede east-west movement of bears along the continental divide at Monida pass, as well as in lowland habitats in other areas.

Animal damage management, including predator control on BLM lands, is handled by Animal and Plant Health Inspection Services - Wildlife Services in coordination with Service. Any animal damage managment actions involving a listed species are conducted under the authority of Wildlife Services or the Service, and must be initiated at the request of livestock producers. The BLM involvement occurs through the review of Wildlife Services' annual work plans prepared under the guidance of their Environmental Assessment for Predator Damage Management in Western Montana, 1997. The BLM authorizations for livestock grazing on BLM lands creates the

potential for depredations to occur, but actual control actions that may cause the loss of bears on BLM or adjoining private lands, are not conducted under BLM authority.

A single grizzly bear has been dealt with on or near BLM lands under the animal damage management plan. In 2000, a male grizzly bear appeared east of Dillon in the Sweetwater Hills on a mixed ownership of private and BLM lands. This bear was eventually killed in Sweetwater Basin by Wildlife Services due to human safety risks. No other recent bear occurrences or mortalities are known from BLM lands.

Grizzly bears that lose their natural fear and avoidance of humans, usually as a result of food rewards, become habituated and may become food-conditioned. Both habituation and food conditioning increase chances of human-caused grizzly bear mortality as a result of real or perceived threats to human safety or property. Nuisance grizzly bear mortalities can be a result of legal management actions, defense of human life or illegal killing. Food Storage guidelines for sanitation to avoid grizzly bear habituation are not in effect in the Dillon BLM Resource Area.

Bears can prey on livestock or scavenge carrion and thereby put themselves at risk of control actions. Grazing is permitted throughout most of the planning area. Grazing permits stipulate the type of grazing allowed on each allotment. In most of the planning area, cattle are the only stock allowed on BLM lands. Several allotments do allow sheep grazing. In addition, in the Centennial Mountains just inside the border with Idaho, is the U.S. Sheep Experiment Station, run by the U.S. Department of Agriculture. This facility grazes sheep on experimental pastures and may represent an attractive nuisance for dispersing grizzly bears moving toward the Bitterroot and Northern Continental Divide Ecosystems.

VI. EFFECTS OF THE ACTION

Under section 7(a)(2) of the Act, "effects of the action" refers to the direct and indirect effects of an action on the species or critical habitat, with the effects of other activities interrelated or interdependent with that action. Indirect effects are those caused by the proposed action and are later in time, but still are reasonably certain to occur (50 CFR 402.2). The effects of the action are added to the environmental baseline to determine the future baseline and to form the basis for the determination in this opinion. Should the federal action result in a jeopardy situation or adverse modification conclusion, the Service may propose reasonable and prudent alternatives that the federal agency can take to avoid violation of section 7(a)(2). The impacts discussed below are the result of direct and indirect impacts of implementing the proposed project.

General Effects of Roads on Grizzly Bears. The area covered under the Dillon resource Management Plan includes habitat used by grizzly bears and also contains high road densities. Research has confirmed the adverse impacts of roads on grizzly bears (Mace et al. 1996, Mace et al. 1999). Negative impacts associated with roads and excessive road densities influenced grizzly bear population and habitat use patterns in numerous, widespread areas. The Grizzly Bear Compendium (IGBC 1987) summarized impacts reported in the literature including the following:

- avoidance/displacement of grizzly bears away from roads and road activity
- changes in grizzly bear behavior, especially habituation to humans, due to ongoing contact with roads and human activities conducted along roads
- habitat loss, modification, and fragmentation due to roads and road construction, including vegetative and topographic disturbances
- direct mortality from road kills, legal and illegal harvest, and other factors resulting from increased human-bear encounters

Habituation and mortality. Mortality is the most serious consequence of roads in grizzly bear habitat. Mortalities result directly from collisions with vehicles and illegal shooting or indirectly through habituation to human presence. Continued exposure to human presence, activity, noise and other elements without negative consequence can result in habituation, which is essentially the loss of a grizzly bear's natural wariness of humans. High road densities and associated increases in human access into grizzly bear habitat can lead to the habituation of grizzly bears to humans. Habituation in turn increases the potential for conflicts between people and grizzly bears. Habituated grizzly bears often obtain human food or garbage and become involved in nuisance bear incidences, and/or threaten human life or property. Such grizzly bears generally experience high mortality rates as they are eventually destroyed or removed from the population through management actions. Habituated grizzly bears are also more vulnerable to illegal killing because of their increased exposure to people. In the Yellowstone region, humans killed habituated grizzly bears over three times as often as non-habituated grizzly bears (Mattson et al. 1992).

The specific relationship between roads and the mortality risk to grizzly bears is difficult to quantify. The level of human use of roads is one of several factors influencing the mortality risk associated with any road. Research supports the premise that roads facilitate human access into grizzly bear habitat, which directly or indirectly increases the risk of mortality to grizzly bears. Grizzly bears were increasingly vulnerable to illegal and legal harvest as a consequence of increased road access by humans in Montana (Mace et al. 1987) and in the Yellowstone region (Mattson et al. 1992). In southeastern British Columbia, McLellan and Shackleton (1988) reported roads increased access for legal hunters and poachers, the major source of adult grizzly mortality. McLellan (1989b) reported that 7 of 13 successful legal hunters interviewed had been on a road when they harvested their grizzly bear. McLellan and Mace (1985) found that a disproportionate number of mortalities occurred near roads. In the Yellowstone ecosystem, Mattson and Knight (1991) reported that areas influenced by secondary roads and major developments were most lethal to grizzly bears. Aune and Kasworm (1989) reported 63 percent of known, human-caused grizzly bear deaths on the east front of the Rocky Mountains occurred within 1 kilometer (0.6 miles) of roads, including 10 of 11 known female grizzly bear deaths. In Montana, Dood et al. (1986)

reported that 48 percent of all known, non-hunting mortalities during the period of 1967 through 1986 occurred within 1 mile of roads. Grizzly bears were also killed by vehicle collision, the most direct form of road-related mortality (Greer 1985, Knight et al. 1981, Palmisciano 1986).

Subadult grizzly bears are more often vulnerable to habituation and illegal killing or they conflict with people and are removed through management action. Subadult grizzly bears frequently traverse long distances or unknown territory, increasing the likelihood of encountering roads, human residences or other developments where human food or other attractants are available, increasing the potential for habituation and/or conflicts with people. Between 1988 and 1993, 6 of 7 grizzly bear management removals from the Flathead National Forest and surrounding area involved subadults (U.S. Forest Service 1994). In the Yellowstone ecosystem, roads impacted individual age and sex classes of grizzly bears differently. Subadults and females with young were most often located near roads, perhaps displaced into roaded, marginal habitat by dominant grizzly bears (Mattson et al. 1987, Mattson et al. 1992).

Displacement and security. Some grizzly bears, particularly subadults, readily habituate to humans and consequently suffer increased mortality risk. However, many grizzly bears under-use or avoid otherwise preferred habitats that are frequented by people. Such under-use of preferred habitat represents modification of normal grizzly bear behavior. Negative association with roads arises from the grizzly bears' fear of vehicles, vehicle noise and other human-related noise around roads, human scent along roads and hunting and shooting along or from roads. Grizzly bears that experience such negative consequences learn to avoid the disturbance and annoyance generated by roads. Such animals may not change this resultant avoidance behavior for long periods after road closures and lack of negative re-enforcement. Even occasional human-related vehicle noise can result in annoying grizzly bears to the extent that they continue to avoid roads.

All factors contributing to direct links between roads and displacement from habitat have not been quantified. As with mortality risk, the level of road-use by people is likely an important factor in assessing the potential displacement caused by any road. Contemporary research, however, indicates that grizzly bears consistently were displaced from roads and habitat surrounding roads, often despite relatively low levels of human use (Mattson et al. 1987, McLellan and Shackleton 1988, Aune and Kasworm 1989, Kasworm and Manley 1990, Mace and Manley 1993, Mace et al.1996).

In Montana, Aune and Stivers (1982) reported that grizzly bears avoided roads and adjacent corridors even when the area contained preferred habitat for breeding, feeding, shelter and reproduction. McLellan and Shackleton (1988) found that grizzly bears used areas near roads less than expected in southeastern British Columbia and estimated that 8.7 percent of the total area was rendered incompatible for grizzly bear use because of roads. In Montana, Mace and Manley (1993) reported use of habitat by all sex and age classes of grizzly bears was less than expected in habitats where total road densities exceeded 2 miles per square mile. Twenty-two percent of the South Fork Study area exceeded 2 miles per square mile. Adult grizzly bears used habitats less than expected when open motorized access density exceeded 1 mile per square mile. Further,

female grizzly bears in the South Fork Study area tended to use habitat more than 0.5 mile from roads or trails greater than expected. As traffic levels on roads increases, grizzly bear use of adjacent habitat decreases (Mace et al. 1996). In Yellowstone, Mattson et al. (1992) reported wary grizzly bears avoided areas within 2 kilometers (1.2 miles) of major roads and 4 kilometers (2.4 miles) of major developments or town sites.

Research suggests that there is value in road closures aimed at minimizing traffic on roads within important seasonal habitat, especially in low elevation habitats during the spring (Mace et al. 1999). When roads are located in important habitats such as riparian zones, snowchutes and shrub fields, habitat loss through avoidance behavior can be significant. Mace et al. (1996) found that most of the roads within grizzly bear seasonal ranges were either closed to vehicles or used infrequently by humans. Some grizzly bears avoided areas with a high total road density even when the roads were closed to public travel. If human related disturbances such as road use or timber harvest continue in preferred habitats for extended periods of time, grizzly bear use of the area may be lost, particularly use by female grizzly bears. In the Swan Mountain study (Mace et al. 1996), female grizzly bear home range selection of unroaded cover types was greatest and as road densities increased, selection declined. Zager (1980) reported the avoidance of roads by females with cubs. Aune and Kasworm (1989) and McLellan (1989a) found that female cubs generally established their home range within or overlapping with their mother's home range, whereas males generally dispersed from their mother's home range. Long-term displacement of a female from a portion of her home range may result in the perpetual under-use of that area by female grizzly bears because cubs have limited potential to learn to use the area. In this way, learned avoidance behavior could persist for several generations of grizzly bears before grizzly bears again utilize habitat associated with closed roads. Thus, displacement from preferred habitats may significantly modify normal grizzly bear behavioral patterns.

Low elevation riparian habitats are of significant seasonal importance to grizzly bears in the YGBE. Grizzly bears typically use the lowest elevations possible for foraging during spring. Craighead et al. (1982) described the value of low elevation habitats to grizzly bears. The Montana Department of Fish, Wildlife and Parks concluded that maximum numbers of grizzly bears can be maintained only if the species continues to have the opportunity to use both the temperate and subalpine climatic zones (Dood et al. 1986).

Research identified the following individual home-range selection patterns in local grizzly bear population segments: (1) some individual animals live almost exclusively (except for denning) in low elevation habitats; (2) other individuals maintain home ranges in more mountainous or remote locations; and (3) some individuals migrate elevationally on a seasonal basis (Servheen 1981, Aune and Stivers 1982).

Specific causes or factors involved in the selection or preferences for certain home ranges by grizzly bears are not well understood. Mace and Manley (1993) found that grizzly bear home ranges in the South Fork Study area included remote areas in high elevations. South Fork Study grizzly bear habitat-use data, road density analyses of the South Fork Study area, previous studies

and CEM analysis (U.S. Forest Service 1994, Mace et al. 1999), suggested that low elevation habitats were not freely available to grizzly bears because of high road densities and associated human use in these areas. High road densities in low elevation habitats may result in avoidance of or displacement from important spring seasonal habitat for some grizzly bears or high mortality risk for those individuals that venture into and attempt to exploit resources contained in these low elevation areas.

Core areas. The Service considers significant declines in expected use of habitat by grizzly bears a serious consequence of high road densities. Significant declines in grizzly bear use of management situation 1 or MS-1 habitat (habitat areas key to the survival of the grizzly where seasonal or year-long activity, under natural, free-ranging conditions is common), especially those habitat components with high seasonal values, indicate that habitat needed for survival and recovery is less available. Ideal grizzly bear habitat provides some areas isolated from excessive levels of human impact. Because grizzly bears can conflict with humans and their land uses, grizzly bear populations require a level of safety from direct human-caused mortality and competitive use of habitat such as settlement, roading, recreation, excessive logging, mining and livestock grazing.

Analysis in the South Fork Study area (Mace and Manley 1993, Mace et al. 1996) indicated the importance of unroaded habitat, especially for females with cubs. Mace and Manley (1993) reported adult females used habitat further than 0.5 miles from roads or trails more than expected; 21 percent of the composite home range had no trails or roads and 46 percent was unroaded (greater than 0.5 miles from a road). Substantive blocks of unroaded habitat were components of all adult female home ranges. Of the adult female locations within unroaded polygons, 83percent occurred within 7 polygons that exceeded 2,260 acres in size. Based on grizzly bear habitat use data from the Yellowstone ecosystem, Mattson (1993) recommended that micro scale security areas in that region be an absolute minimum of 6 kilometers (3.6 miles) in diameter or 28 square kilometers (10 square miles) and should be secure for a minimum period of 5, or preferably 10 years.

The IGBC Taskforce (IGBC 1994) recognized the importance of secure areas to grizzly bears. The Taskforce defined "core areas" as those areas with no motorized access (during the non-denning period) or heavily used foot/livestock trails, providing some level of secure habitat for grizzly bears. Motorized use, such as snowmobiling or that associated with timber harvest, could occur within core areas during the denning (winter) period. The Taskforce recommended the establishment of core areas in all Subunits, the size of core area should depend on ecosystem-specific habitat conditions, and that a core area remain intact on the landscape for at least 10 years. In the South Fork Study area of the NCDE, approximately 68 percent of the adult female composite home range was core area (Mace and Manley 1993).

Direct and Indirect Effects of the Proposed Action.

The Service has determined that activities related to access management outside the grizzly bear recovery zone but within the current grizzly bear distribution, may result in adverse effects to grizzly bears when considering the baseline condition. Grizzly bear avoidance of roads can extend to 1.2 miles dependent on road activity (Mattson et al. 1992, Mace and Manley 1993, Mace et al. 1996). McLelland and Mace (1985) found that disproportionate number of mortalities occurred near roads. Aune and Kasworm (1989) reported 63 percent of known, human-caused grizzly bear deaths on the east front of the Rocky Mountains occurred within 1 kilometer (0.6 miles) of roads. In Montana, Dood et al. (1986) reported that 48 percent of all known, non-hunting mortalities during the period of 1967 through 1986 occurred within 1 mile of roads. Grizzly bears were also killed by vehicle collision, the most direct form of road-related mortality (Greer 1985, Knight et al. 1981, Palmisciano 1986).

Significant under-use of habitat by grizzly bears can occur when open motorized access density exceeds 1 mile per square mile and when total motorized access density exceeds 2 miles per square mile measured by moving windows (Mace and Manley 1993, Mace et al. 1996). Within the YGBE recovery zone, federal land management agencies have measured road densities using moving windows analysis. Road miles and distribution of road networks outside the recovery zone have yet to undergo this type of analysis. Calculation of road density is further complicated by the "checkerboard" pattern of land ownership that characterizes much of the land managed by BLM in this area. It is likely that even in portions of the planning area where BLM lands have road densities under 1 mile per square mile, higher road densities on adjacent private or state lands will increase the overall road density above that standard.

Using a rough linear road density measure, open road density on BLM lands in the planning area was determined to be 0.91 mile per square mile, and total road density, including open and closed roads, is 1.49 miles per square mile. Because roads are not equally distributed across the planning area, we expect that open road densities exceeding 1 mile per square mile and total road densities exceeding 2 miles per square mile may occur in localized areas. Actions that involve additional road building would add to existing adverse conditions in those areas. In rare cases, we expect high road densities would result in significant displacement of some grizzly bears. However, some grizzly bears apparently become conditioned to and successfully use areas with higher levels of human pressure. Based on current data the Service cannot determine the exact number of grizzly bears in the action area, but displacement pressure is expected to affect only few grizzly bears considering the reported low occurrence of grizzly bears in the area combined with the relatively low overall road density. We have no information to assess the presence of core habitat on Dillon BLM lands but it is likely that some core habitat occurs, primarily within wilderness and wilderness study areas.

The construction of both temporary and permanent "system" roads could have direct and indirect effects on individual grizzly bears: displacement and behavior changes. Projects authorized under the plan may involve short-term site-specific increases in total road density above 1 mile per

square mile. These high road densities associated with site specific projects would be short-term as the plan states that projects will be designed with a post project open road density target of 1 mile per square mile or less. The plan clearly states that it will not increase open road density. Under the plan BLM is committed to no net increase in open roads for the entire planning area. If a project results in the establishment of new open road mileage, an equal or greater number of miles of existing open road must be closed. Although the extent of additional temporary or closed roads that will be built or obliterated under the proposed plan is unknown at this time, for the purposes of this consultation it is assumed that road densities may increase in some localized areas over the life of the plan. Also, new roads may be closed to motorized use by the public but not obliterated, leading to localized increases in total road density. Further, roads closed to public use may not have effective barriers to unauthorized use, such as gates or berms. The Service anticipates some level of trespass on closed roads by the public. Therefore, we agree that some level of adverse effects to grizzly bears would result from displacement of bears due to high open and/or total road densities. However, the proposed action reduces the road density of roads legally open to public use by 39 percent, which is expected to substantively curtail public use from existing levels. This reduction in open road density is expected to lessen the adverse impacts of open roads on grizzly bears, over time.

Actions authorized under the plan may have a direct impact on hiding cover value. Actions such as fuels reductions, timber harvest, and prescribed fire will reduce or eliminate hiding cover over the short term in some areas. The plan does not authorize sustained activities of more than one week in duration associated with vegetation treatments to occur in more than two adjacent 6th order hydrologic units at a time. Due to the relatively small scale of planned timber management actions and the restriction on implementing actions in adjacent hydrologic units, the effects of the vegetation treatments on hiding cover is insignificant. Harvest and fuel reduction activities and road use could displace grizzly bears from the project area during implementation and possibly beyond the activity due to learned avoidance behavior. No grizzly bear denning habitat is known to occur on the Dillon planning area, although exhaustive surveys have not been conducted. The possibility exists that denning does occur within the planning area or that bears will den there during the life of the plan.

There are currently no food storage orders or sanitation standards for the Dillon resource area. Dispersed recreation occurs throughout the planning area and there are several developed campgrounds for public use. In addition, outfitters, through a special permit from BLM, are allowed to operate on BLM lands throughout the planning area. Recreational use may increase the potential for loss of bears through killing in defense of life, defense of property, vehicle collisions, mistaken identity by black bear or other big game hunters, poaching, and malicious killing. No conflicts involving food storage or sanitation have been reported on BLM land in the planning area. However, there have been reports of a grizzly bear(s) using garbage dumps on private land in the Centennial Mountains (J.Roscoe, pers. comm. 2004). Dillon BLM will monitor developed recreation sites for potential conflicts, and impose food storage or sanitation measures at East Fork of the Blacktail and South Madison Campgrounds, and at Axolotl Lakes area, if conflicts occur.

Although year-round use by grizzly bears occurs in only a few areas on Dillon BLM-managed lands, the planning area may eventually become important for maintaining connectivity between separated grizzly bear ecosystems. The Dillon planning area is located between the Greater Yellowstone, Bitterroot, and Northern Continental Divide Grizzly Bear Ecosystems. The planning area's location makes BLM lands important for possible movement of bears between populations in separate ecosystems, maintaining genetic exchange and potentially a route for colonizing individuals to reach the Bitterroot ecosystem. Activities authorized by the plan that may affect the ability of grizzly bears to move between blocks of suitable habitat include road building, timber management operations, grazing, mineral exploration/development, and recreation within connectivity corridors. In general, these activities do not occur at scales and intensities that would create a barrier to grizzly bear movement. Large-scale projects that occur within areas used by grizzly bears or in identified connectivity zones will require site-specific section 7 consultation.

Livestock grazing is proposed throughout most of the planning area and represents a potential source of conflict with grizzly bears. Permitted livestock is primarily cattle with sheep allotments in some areas. Livestock, especially sheep, may serve as an attractant to grizzly bears leading to depredations and the eventual habituation of a bear to feeding on livestock and other human-provided foods. Repeated depredations may require removal of the offending bear, either through hazing, relocation, or lethal control. Under the proposed plan, grazing permits will be amended to state that depredations are possible, however, conflicts requiring bear removal may still occur.

The planning area does not contain land within the Yellowstone recovery zone, but grizzly bears are expanding their range beyond recovery zone boundaries and have been noted in the Dillon BLM planning area (U.S. Forest Service 2002). According to the Recovery Plan, grizzly bear recovery zones are designated geographic areas that contain the area and resources needed to sustain a biologically viable population of bears. Recovery zones offer defined areas to monitor population and demographic trends, conduct scientific study, and apply management specifically intended to improve the status of the species to the point of recovery. Grizzly bears, both inside and outside the recovery zone, are listed as threatened under the Act, and as such are protected under the provisions of the Act. However, grizzly bears residing primarily within the recovery zone are crucial to recovery of the YGBE population, as defined by the Recovery Plan, and delisting. The Recovery Plan acknowledged that only lands inside recovery zones would be managed primarily to promote recovery of the grizzly bear population. The Recovery Plan also acknowledged that grizzly bears could and would reside in areas outside recovery zones, but that recovery of the species was not dependent on lands outside recovery zones and that these lands would not be managed primarily for grizzly bear use.

VII. CUMULATIVE EFFECTS

Cumulative effects are the effects of future state, tribal, local, or private actions that are reasonably certain to occur in the action area considered in this opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act.

Lands intermingled with and surrounding Dillon BLM lands contain established human activities and developments including roads, timber harvest, grazing, agriculture, and numerous recreational opportunities. Across the area, open and closed roads facilitate human access, contributing to the risk of mortality or displacement. Subdivision and development of private lands, as well as increased human pressure in the form of recreation, hunting, firewood gathering, and other activities are expected to continue. Food storage to discourage bears is not mandatory on private lands included in the action area. Grizzly bear habituation to human foods is possible. Coyote and other predator control is conducted by private land owners throughout the planning area contributing to risk of inadvertent poisoning of scavenging grizzly bears. It is expected that logging and other vegetation alteration would continue on adjacent private holdings with effects on grizzly bears not analyzable at this time.

Vegetation treatments in the Greenhorn Mountains would increase habitat fragmentation by reducing patch size and stand density, and adding temporary roads. This reduction of suitable habitat would occur in an area immediately adjacent to occupied grizzly habitat on adjoining Beaverhead-Deerlodge National Forest lands.

VIII. CONCLUSION

After reviewing the current status of the grizzly bear, the environmental baseline for the action area, the effects of the action, and the cumulative effects, it is the Service's biological opinion that the Dillon BLM Resource Management Plan, as proposed, is not likely to jeopardize the continued existence of grizzly bears in the YGBE. No critical habitat has been designated for this species, therefore, none would be affected. Implementing regulations for section 7 (50 CFR 402) define "jeopardize the continued existence of" as to "engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." Impacts to grizzly bears and their habitat would be minor. Our rationale for this non-jeopardy conclusion is based on all information presented in this biological opinion, including but not limited to the following factors:

1. Although road densities are high outside the recovery zone, the overall habitat condition in the larger Yellowstone ecosystem is excellent. The YGBE Recovery Zone contains large amounts of secure habitat and very low total and open road densities in the majority of the subunits. There are many large roadless areas within the YGBE. For the YGBE Recovery Zone, the mean secure habitat is 86.2 percent, the mean open motorized access route density is 10.4 percent in Season 1 (March 1 - July 15) and 10.7 percent in season 2 (July 16 - November 30) and the mean total motorized access route density is 5.3 percent (Interagency Conservation Strategy Team 2003). The grizzly bear population in the Yellowstone ecosystem is stable to increasing, has reached or exceeded recovery goals, and is apparently expanding its range.

2. The best information suggests that grizzly bears are not common in the area. The Dillon BLM planning area contains open road densities exceeding one mile per square mile. In some areas, we expect high road densities to result in significant displacement of some grizzly bears. However, some grizzly bears do use areas with higher levels of human pressure. It is expected that displacement pressure would affect only a low number of grizzly bears and would not have appreciable impacts on the YGBE grizzly bear population.

3. The plan would result in an overall reduction in open road density due to closure of approximately 39 percent of currently open roads. Timber management activities, thinning, fuel reduction and road construction would result in displacement of some grizzly bears but would not result in an overall increase in open or total road density.

4. No denning habitat is known to occur on Dillon BLM managed lands.

5. The Dillon BLM managed lands do not lie within the YGBE recovery zone, the area designated as needed for the survival and recovery of the grizzly bear. The proposed action will improve grizzly bear habitat to some degree, but is likely to result in habitat conditions less favorable to grizzly bears than conditions that are attained on federal lands within the recovery zone. Grizzly bears living primarily outside the recovery zone probably experience a higher level of adverse impacts due to land management actions than do grizzly bears residing inside. However, the Recovery Plan describes the 9,209 square mile recovery zone as an area adequate for managing and promoting the recovery and survival of the YGBE grizzly bear population. The Yellowstone recovery zone contains large portions of wilderness and national park lands, which are protected from the influence of many types of human uses occurring on lands elsewhere. As anticipated in the Recovery Plan, grizzly bears are expanding their range outside of the recovery zone. Considering the large size of the Yellowstone recovery zone, land management within the recovery zone, and the status of the grizzly bear population within the recovery zone, and the fact that no land within the recovery zone will be affected, the proposed action would not likely appreciably diminish the survival and recovery of the YGBE grizzly bear population.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly

impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harass is defined by the Service as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of an incidental take statement.

The measures described in an incidental take statement are non-discretionary and must be undertaken by the action agency so that they become binding conditions of any grant or permit issued, as appropriate, for the exemption in section 7(o)(2) to apply. The action agency has a continuing duty to regulate the activity that is covered by this incidental take statement. If the action agency (1) fails to assume and implement the terms and conditions or (2) fails to require an applicant to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document, the protective coverage of section 7(o)(2) may lapse. To monitor the impact of incidental take, the BLM must report the progress of the action and its impact on the species to the Service as specified in this incidental take statement [50CFR 402.14(I)(3)].

Amount or Extent of Incidental Take

Significant under-use of habitat by grizzly bears can occur when open motorized access density exceeds one mile per square mile and when total motorized access density exceeds two miles per square mile as measured by moving windows analysis. The Service maintains that this under-use of otherwise suitable habitat constitutes incidental take of grizzly bears through harm when it is prevalent over large landscapes, by alteration of habitat that significantly impairs breeding, feeding and/or sheltering of grizzly bears.

Although a moving windows analysis has not been completed for BLM lands the planning area, the best information available leads us to conclude that a degraded baseline exists due to high open and total road densities and intense human use. Additional use of motorized equipment will result from site-specific projects authorized under the plan and would increase the likelihood of disturbance and displacement in the analysis area. Due to roads and activities in the project areas and associated road construction and use allowed by this plan, the Service anticipates that adverse effects to grizzly bears are likely to cause some level of impairment of breeding, feeding or sheltering, especially during the spring period.

The effects of high road densities on individual grizzly bears are largely unquantifiable in the short-term and may be measurable only as long-term effects on the species' habitat and population levels. The number of grizzly bears that use the planning area is unknown, but the planning area is within the expected distribution of grizzly bears. The best scientific and commercial data available are not sufficient to enable the Service to quantify a specific amount of incidental take of the

species. Existing reports indicate year-round grizzly bear use of the area occurs in only localized areas and a low number of transient individuals may travel widely throughout the planning area. Therefore, the Service anticipates that some low level of incidental take of grizzly bears would occur in the form of harm from the displacement effects of road densities and increased activity on roads in project areas for the life of the plan. In cases where incidental take is unquantifiable, the Service uses surrogate measures to assess the level of take. Here we will base our estimate of incidental take on a) the proposed level of open road density, which is 39 percent of the miles of currently open road; and b) the proposed no net increase in permanent open road density over the life of the plan. If either of these two proposed levels of roading are exceeded, the BLM must reinitiate formal consultation with the Service.

Livestock grazing, especially in allotments that allow sheep grazing, represents a potential source of incidental take. Livestock, especially sheep, may serve as an attractant to grizzly bears leading to depredations and the eventual habituation of a bear to feeding on livestock and other human-provided foods. Such habituation represents a significant impairment of natural feeding behavior. With the anticipated increase in grizzly bear use over the life of the plan, it is possible that management actions against habituated grizzly bears will be required. Furthermore, the lack of food and attractant storage requirements within the planning area may contribute to death or removal of grizzly bears through necessary management removal and other human-caused mortality. One incident involving a grizzly bear feeding on improperly stored garbage on private land in the planning area has already occurred. Until a comprehensive sanitation program is implemented on BLM lands, the potential for grizzly bears to have access and become habituated to improperly stored food items on federal land will persist. Thus, incidental take of grizzly bears is possible through habituation and human food-conditioning that leads to the death or removal of bears through management actions.

The Service anticipates that no more than two grizzly bears will be removed from the planning area through management actions as a result of habituation and/or food conditioning of grizzly bears or conflicts with livestock, due to land management actions or activities authorized under this plan during the life of the plan. Therefore, should more than grizzly two bears be taken incidentally due to the authorizations of this plan, the BLM must immediately reinitiate formal consultation with the Service. Additionally, should the level of incidental take associated with the plan reach, but not exceed, the anticipated incidental take level, the BLM should informally consult with the Service regarding the adequacy of existing mechanisms to minimize potential take.

This level of incidental take is expected for the following reasons 1) there has already been one management removal of a grizzly bear from BLM/private checkerboard ownership land in the planning area, 2) as the YGBE grizzly bear population grows and expands, grizzly bear use of the planning area is expected to gradually increase both in frequency and in geographic extent, 3) several sheep grazing allotments permitted by the BLM are in continued use, 4) human use of the planning area for recreation and residential development is expected to increase. The combination of increased human use (including sheep grazing) and increased grizzly bear use of the planning

area is likely to lead to some increase in human/bear conflicts, necessitating management removal of a low number of bears over the life of the plan.

Effect of the Incidental Take

In the accompanying biological opinion, the Service has determined that this level of anticipated take is not likely to result in jeopardy to the species. As described earlier, the BLM plan would implement the following measures in the proposed action, which would minimize impacts to the grizzly bear:

- Monitor the South Madison campground and undeveloped sites in the East Fork of the Blacktail and the Axolotl Lakes area for food storage problems related to grizzly bear use and the potential need for bear proof trash containers. Major BLM land trailheads and access points in these areas and in the Centennial Mountains would be posted to advise recreationists about proper food storage to avoid back country conflict.
- Amend grazing permits in grizzly use areas to state that depredation losses are possible.
- Large scale restoration of aspen in the Centennial Valley will provide a broad diversity of lush herbaceous vegetation and will attract increased foraging use by grizzly bears, as well as many other wildlife species.
- Confine habitat disturbance within two adjoining 6th code hydrologic units and minimize displacement from adjacent areas during vegetation treatment projects, which should reduce the potential displacement of grizzly bears.
- The proposed action would designate 61 percent of all existing roads on BLM lands in the Dillon planning area as open. Thirty-nine percent of currently open roads would be closed to general public use. The reduced road density on BLM lands around the Gravelly/Greenhorn Ranges and in the Centennial Valley would be about one-half mile open road per square mile on an area-wide basis.
- A post-project target of 1 mile of open road per square mile would be used for maintaining grizzly bear security and reducing mortality risk. Where road density is less than 1 mile per square mile, there would be no permanent net increase in road density. Temporary project roads could represent a short-term, site-specific increase in road density until they are reclaimed, depending on the size and location of the project cumulative effects area.

The Recovery Plan describes the 9,209 square mile recovery zone as an area adequate for managing and promoting the recovery and survival of the YGBE grizzly bear population. The YGBE recovery zone contains large portions of wilderness and national park lands, which are protected from the influence of many types of human uses occurring on lands elsewhere. Land management actions within the recovery zone are limited or designed to reduce the potential for and minimize the impacts of incidental take of grizzly bears on the YGBE population.

As anticipated in the Recovery Plan, grizzly bears in the YGBE are increasing in number and are expanding their range outside of the recovery zone. Grizzly bears outside the recovery zone probably experience a higher level of adverse impacts due to land management actions

than do grizzly bears inside. However, the Recovery Plan indicates that grizzly bear habitat outside the recovery zone is not essential to reach recovery of the YGBE grizzly bear population. Indeed, the YGBE grizzly bear population has consistently met most of the Recovery Plan criteria for recovery for the past 5 years. Considering the large size of the YGBE recovery zone, land management favoring grizzly bears within the recovery zone, the status of the grizzly bear population within the recovery zone, and the fact that the proposed action will not affect land within the recovery zone, we conclude the proposed action is likely sufficient to minimize the impact of incidental take of grizzly bears that may occur as a result of actions or activities authorized under the proposed plan.

Reasonable and Prudent Measures

Incidental take statements provide reasonable and prudent measures that are expected to reduce the amount of incidental take. Reasonable and prudent measures are those measures necessary and appropriate to minimize incidental take resulting from proposed actions. Reasonable and prudent measures are non-discretionary and must be implemented by the agency in order for the exemption in section 7(o)(2) to apply:

The Service believes that the measures mentioned above in the "Effect of Take" section will likely sufficient to lessen adverse impacts to grizzly bears and minimize the impact of incidental take that may occur. One additional Reasonable and Prudent Measures is required:

1. Ensure that actions conducted under the proposed programmatic plan do not result in unexpected consequences that affect more grizzly bears or impart additional effects to grizzly bears than anticipated in this biological opinion.

Terms and Conditions

In order to be exempt from the prohibitions of Section 9 of the Act, incidental take statements provide terms and conditions that implement the reasonable and prudent measures and outline reporting and monitoring requirements. Terms and conditions are non-discretionary.

The Service believes that the measures mentioned above in the "Effect of Take" section will be sufficient to lessen adverse effects to grizzly bears and minimize the impact of incidental take that may occur. The following terms and conditions are necessary to implement the reasonable and prudent measure listed above:

1. If more than 10 miles of road construction is planned or completed annually, BLM Dillon Field Office will consult with the Service.
2. Temporary roads shall be closed and reclaimed within 2 years following the end of road use or project completion.

Reporting requirements

3. The BLM shall maintain an up-to-date record of grizzly bear management actions that take place on BLM lands or as a result of activities authorized by BLM Dillon Field Office.
4. If an incident of depredation or use of improperly stored food items results in removal of a grizzly bear, BLM shall follow the Interagency Grizzly Bear Committee guidelines in reporting the incident to the Service.
5. In addition, BLM shall report any depredation or food storage incidences to the Service's Montana Ecological Services Sub-office in Billings, or Montana Ecological Services Field Office in Helena.
6. To monitor changes in road densities and potential effects on grizzly bear or their habitat, BLM shall annually provide the Service a report documenting:
   a) the number of miles of new road constructed
   b) the number of miles of road closed to public use and reclaimed
   c) the number of miles of temporary road on the landscape, and length of time since construction of the temporary road
   d) how open road densities may have changed relative to target densities of one mile per square mile within the analysis areas for projects. We recommend the use of 6th code hydrologic units for an unbiased and consistent analysis of open road density, using the unit containing the project and the adjoining 3-6 units with similar habitat.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act requires federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information. The recommendations provided here relate only to the proposed action and does not necessarily represent complete fulfillment of the agency's section 7(a)(1) responsibility for the species.

1. Participate in ongoing interagency efforts to identify, map, and manage linkage habitats essential to grizzly bear movement between ecosystems. Please contact the Service's grizzly bear recovery coordinator office at (406) 243-4903 for information.

2. Continue to manage road access on BLM lands to achieve lower road densities where possible. By managing motorized access several benefits to grizzly bear could be achieved: 1) fewer human/grizzly bear interactions and potential grizzly bear mortalities; 2) less displacement from important habitats; 3) less habituation to humans; and 4) relatively secure habitat where energetic requirements can be met (IGBC 1998). Additionally, lower road densities would also benefit other wildlife and public resources. Lower road densities result in lower maintenance costs that free up funding for other resource needs.

3. Management of garbage food, and livestock feed storage to prevent access to bears would benefit grizzly bears as well as black bears and other carnivores. Human/carnivore interactions would also be reduced leading to a public safety benefit.

4. Grizzly bears concentrate in certain areas during specific time periods to take advantage of concentrated food sources or because the area provides a high seasonal food value due to diversity in vegetation and plant phenology (e.g., important spring or fall range). Where grizzly bear use is known or likely to occur and where practicable, delay disturbing activities during the spring in spring habitats to minimize displacement of grizzlies.

5. Include security cover needs for grizzly bears in timber and vegetation management activity plans to increase the utility of habitat for grizzly bears across the Dillon planning area. Specifically, adjust the size and shape of cutting and harvest units to reduce the distance to cover, adjust edges and leave patches of trees and understory within cutting units to reduce line-of-sight distances.

REINITIATION NOTICE

This concludes consultation for the potential effects of the Dillon BLM resource management plan on grizzly bears. As provided in 50 CFR 402.16, re-initiation of formal consultation is required where discretionary federal agency involvement or control over the action has been maintained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded, (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion, (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this opinion, or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending re-initiation.

Thank you for your continued efforts for the conservation of endangered, threatened, and proposed species. If you have any questions or comments, please contact me at 406 449 5225 or Shawn Sartorius at 406 247 7366.

Sincerely,

R. Mark Wilson

R. Mark Wilson
Field Supervisor

cc: Jeff Hagener, Director, Montana Fish, Wildlife and Parks, Helena
AES, R6, USFWS, Denver MS 60120 (Attn: B. Fahey)
Grizzly Bear Recovery Coordinator, USFWS, Missoula
File: 7759 Biological Opinions 2004

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M.02 - BLM

February 25, 2005

Tim Bozorth
Bureau of Land Management
Dillon Field Office
1005 Selway Drive
Dillon, MT 59725

Dear Mr. Bozorth,

This letter responds to your request for additional consultation on the Montana Bureau of Land Management's Draft Dillon Resource Management Plan and Environmental Impact Statement of March 2004. On October 29, 2004 we completed a biological opinion addressing effects to listed species from the draft plan. That opinion was based on the Biological Assessment of March 22, 2004 prepared by the Dillon Field Office staff as well as supplementary information from the Draft Environmental Impact Statement for the Dillon Resource Management Plan. In subsequent correspondence with Dillon Field Office staff, it came to our attention that the action of using sheep grazing as a weed control measure was included in the March 2004 Draft Environmental Impact Statement but that action's potential impacts to listed species had not been addressed in the biological assessment or biological opinion. This letter serves as an addendum to the October 29, 2004 biological opinion and incidental take statement and should be tiered to those documents in your office. Our analysis of sheep grazing for weed control supplements and is in part dependent upon analysis of the effects of grazing contained in the October 29, 2005 opinion.

DESCRIPTION OF PROPOSED ACTION

The following description of the proposed action is largely excerpted from your letter of January 25, 2005, which supplemented your biological assessment of March 22, 2004 analyzing effects disclosed in the Draft Environmental Impact Statement. The action being analyzed here is the use of sheep grazing for noxious weed control. The objective is to reduce vigor and seed production of noxious weeds, thereby reducing their density, competitiveness, and rate of spread. Carefully-timed, intensive sheep grazing is an important tool that helps to control infestations of certain noxious weeds such as leafy spurge and spotted knapweed. Grazing would be authorized as a temporary use only, and would occur on relatively small geographic areas of public land. Efforts in some areas may be combined with cooperative efforts on adjoining lands. Sheep would graze in the spring and early summer to reduce vigor and seed production of the target species, although subsequent follow-up treatments later in the season may be recommended. Sheep would be herded to intensively graze an area for less than 10 days, usually 3-4 days, with sheep moved to a protective pen each night when potential for predation by wolves and grizzly bears

exists. The temporary night pen would be constructed with predator-proof fencing. The area inside the pen would be seeded with a native seed mix during the last night that the sheep are held there. This regimen of activities may be continued for three to five consecutive years. Herbicides, insects, reseeding, or other tools may be used in conjunction with domestic sheep grazing to increase control effectiveness.

Research has shown that intensive spring grazing during rapid plant growth reduces the vigor, density, and seed-producing capability of mature plants. Continued seasonal grazing of the same areas over several years would reduce the residual seed bank. However, intensive utilization would also utilize any other non-target palatable vegetation available and reduce vigor and productivity of those plants. This impact would be short-term for the duration of the project, but would need to be considered in subsequent grazing management strategies to restore the vigor of non-target vegetation. The vegetation and soil surface within night pens would be disturbed because of the concentrated use, but reseeding would prevent these areas from becoming devoid of vegetation or being infested by undesirable species.

To minimize the potential conflicts between grizzly bears or wolves, and domestic sheep used to control noxious weeds, the following conservation measures would be required by BLM for any projects proposed in occupied grizzly bear habitat:

1. Domestic sheep grazing to control noxious weeds would not be used where previous livestock depredations have occurred from grizzly bear or wolves.
2. Domestic sheep would be removed from a project area if depredation or encounters occur from grizzly bears or wolves.
3. Any contracts or agreements to use domestic sheep grazing to control noxious weeds would specify that no control actions against grizzly bears or wolves would be requested by the contractor if depredations or encounters occur as part of the weed grazing action. Any encounters with wolves or grizzly bears would be reported to Montana Fish, Wildlife and Parks and the U.S.D.A. Wildlife Services.
4. Domestic sheep would be herded, and attended by guard dogs at all times.
5. Temporary, predator-proof electric fencing would be used to protect night bedding areas where potential for predation by wolves and grizzly bears exists.

EFFECTS AND DETERMINATIONS

In your biological assessment you conclude that this project would not jeopardize the experimental/nonessential population of gray wolves. When BLM makes a no jeopardy determination concurrence from us is not required, however we do appreciate the information for our records. The following analysis considers only the effects of the project on grizzly bears.

The effects of grazing were analyzed in detail in the October 29, 2004 opinion and were determined to be likely to adversely affect grizzly bears due to the potential for depredation on livestock followed by removal or killing of offending grizzly bears. Grizzly bears are known to prey on sheep and bears that prey on sheep may become habitual offenders, requiring that the bear be removed or killed by managers. In addition, associating with livestock may bring bears into contact with humans, their habitations and camps which may have additional food attractants. Sheep grazing for weed control would add additional adverse effects to those analyzed in the original opinion, although these adverse effects would be limited to mortality in defense of human life in the case of sheep herders or to the possibility that bears may become

conditioned to depredating livestock in the short time between the first depredation event and the removal of the sheep herd, potentially leading to management actions against the bear at a later time. Both of these are considered low-probability outcomes given the conservation measures you have included in the biological assessment supplement. The proposed action contains mandatory conservation measures that would be required if sheep grazing is used for weed control in areas occupied by grizzly bears. The potential for management removal of bears resulting from this action is minimized by conservation measure three which stipulates that no management actions against bears would be requested by BLM or their contractors as a result of depredations that occur during weed control operations. The potential for food-conditioning is minimized by measures one, two, four, and five which require that sheep not be used in areas with a history of depredations, sheep be removed if any interactions with bears occurs, sheep would be attended by a human herder and dogs at all times, and sheep would be fenced at night.

Due to the low probability of grizzly bear mortality and the generally low grizzly bear use of the planning area, we have determined that the effects of using sheep grazing for noxious weed control, in addition to the effects already analyzed in the October 29, 2004 opinion, is not likely to jeopardize the continued existence of the grizzly bear. This determination is based on the contents of the supplemental biological assessment of January 25, 2005, the original biological assessment for the Draft Environmental Impact Statement of March 2004, and the Draft Environmental Impact Statement itself.

INCIDENTAL TAKE STATEMENT SUPPLEMENT

The presence of sheep grazing for weed control represents a potential source of incidental take. With the proposed conservation measures, there remains a slight probability that grizzly bears may be killed in defense of human life in the case of sheep herders, or may become habituated to livestock/humans through exposure to sheep and sheep herders' camps. Until a comprehensive sanitation program is implemented on BLM lands, the potential for grizzly bears to have access and become habituated to improperly stored food items on federal land will persist. Thus, the potential for incidental take of grizzly bears through management actions as a result of habituated and food conditioned bears will remain.

The Service anticipates that no more than one grizzly bear would be removed from the planning area through management actions as a result of conflicts with sheep used for BLM weed control projects during the life of the plan. Therefore, should more than one grizzly bear be taken incidentally to the authorizations of the weed control plan, the BLM must immediately reinitiate formal consultation with the Service. Additionally, should the level of incidental take associated with the plan be reached, but not exceeded, the BLM should informally consult with the Service regarding the adequacy of existing mechanisms to minimize potential take. The incidental take allotted for the weed-control aspect of the Resource Management Plan is separate and in addition to the incidental take allowed under the October 29, 2004 opinion.

In the above *Effects and Determinations* section, the Service determined that this level of anticipated take is not likely to result in jeopardy to the species. The BLM is implementing the following measures which would sufficiently minimize impacts to the grizzly bear:

1. Domestic sheep grazing to control noxious weeds would not be used where previous livestock depredations have occurred from grizzly bear or wolves.

2. Domestic sheep would be removed from a project area if depredation or encounters occur from grizzly bears or wolves.
3. Any contracts or agreements to use domestic sheep grazing to control noxious weeds would specify that no control actions against grizzly bears or wolves would be requested by the contractor if depredations or encounters occur as part of the weed grazing action. Any encounters with wolves or grizzly bears would be reported to Montana Fish, Wildlife and Parks and the USDA Wildlife Services.
4. Domestic sheep would be herded, and attended by guard dogs at all times.
5. Temporary, predator-proof electric fencing would be used to protect night bedding areas where potential for predation by wolves and grizzly bears exists.

The Grizzly Bear Recovery Plan of 1993 describes the 9,209 square mile recovery zone as an area adequate for managing and promoting the recovery and survival of the Yellowstone grizzly bear ecosystem (YGBE) grizzly bear population. The YGBE recovery zone contains large portions of wilderness and national park lands, which are protected from the influence of many types of human uses occurring on lands elsewhere. Land management actions within the recovery zone include limitations designed to reduce the potential for and minimize the impacts of incidental take of grizzly bears on the YGBE population.

As anticipated in the Recovery Plan, grizzly bear numbers in the YGBE are increasing and bears are expanding their range outside of the recovery zone. Grizzly bears outside the recovery zone probably experience a higher level of adverse impacts due to land management actions than do grizzly bears inside. However, grizzly bears outside the recovery zone are not included in the number of grizzly bears needed to reach recovery under the Act. According to the recovery plan "Each recovery zone will include an area large enough and with sufficient habitat quality to support a recovered grizzly bear population." In addition, the recovery plan recognizes that areas outside the recovery zones will not be managed primarily for grizzly bears. The YGBE grizzly bear population living primarily within the recovery zone has consistently met the recovery plan criteria for recovery for the past 5 years. Considering the large size of the Yellowstone recovery zone, land management within the recovery zone, and the status of the grizzly bear population within the recovery zone, and the fact that no land within the recovery zone would be affected, we conclude the proposed action is sufficient to minimize the impact of incidental take of grizzly bears that may occur as a result of sheep grazing for noxious weed control.

REASONABLE AND PRUDENT MEASURES

The Service believes that the five conservation measures proposed by the BLM in the biological assessment supplement would be sufficient to lessen adverse impacts to grizzly bears and minimize the impact of incidental take that may occur. No additional Reasonable and Prudent Measures are necessary.

TERMS AND CONDITIONS

The October 29,2004 opinion covering the Draft Environmental Impact Statement contained terms and conditions that involve reporting incidents related to grizzly bears. These terms and conditions also apply to sheep grazing for weed control analyzed in this letter. The terms and conditions from the opinion are:

1) The BLM must maintain an up-to-date record of grizzly bear management actions that take place on BLM lands or as a result of activities authorized by BLM at the Dillon field office.
2) If an incident of depredation or use of improperly stored food items results in removal of a grizzly bear, BLM must follow the Interagency Grizzly Bear Committee guidelines in reporting the incident to the Service.
3) In addition, BLM must report any depredation or food storage incidences to Shawn Sartorius at the Billing Ecological Services Sub-office in Billings, Montana, or if Shawn Sartorius is unavailable, to another appropriate biologist in the Montana Ecological Services Field Office.

This concludes formal consultation on the supplemental biological assessment for weed control using sheep in the Draft Dillon Resource Management Plan and Environmental Impact Statement. Thank you for your continued interest in the conservation of endangered, threatened, and proposed species. If you have any questions or comments, please contact me or Shawn Sartorius at (406) 247-7366.

Sincerely,

R. Mark Wilson

R. Mark Wilson
Field Supervisor

cc: USFWS, Billings, MT (Attn: Shawn Sartorius)